DOCUMENT RESUME

ED 191 962 UD 020 900

TITLE	Flnal Report on Evaluation of the Emergency School Aid Act Program of the Public Schools of the District of Columbia, 1977-78.
INSTITUTION	Mediax Associates, Inc., Westport, Conn.
SPONS AGENCY	District of Columbia Public Schools, Washington, D.C. Dept. of Research and Evaluation.
PUB DATE	Nov 78
CONTRACT	GA-78-CHI-J5A-00-W01-2554
NOTE	176p.: Tables may be marginally legible due to small print.
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	*Academic Achievement; Career Education; *Cultural Isolation; Economically Disadvantaged; Elementary Secondary Education; Federal Programs; Program Attitudes; Program Descriptions; *Program Effectiveness; Program Evaluation; Racial Segregation; *Remedial Programs; *School Desegregation
IDENTIFIERS	*District of Columbia; *Emergency School Aid Act

ABSTRACT

This evaluation of the Emergency School Aid Act (ESAA) Program in the District of Columbia public schools addresses four general issues: (1) the extent to which the program was implemented as planned: (2) the extent of participation by identified target populations: (3) assessments of the program by participating professional and other adult personnel: and (4) assessments by participating students and the educational growth of these students. In this context, the Career Education Project, the Two-W Project, the Special and Remedial Services Project, and the Round Meadow Outdoor Laboratory School Project (the four components of the ESAA Program) are described and appraised. Information presented and analyzed consists of: (1) records of interviews and field observations: (2) responses of 515 staff members, administrators, personnel from cooperating agencies, and parents: (3) reports and assessments by 585 student participants: and (4) pre and post academic achievement test scores for nearly 5,000 students. The overall conclusion offered is that the 1977-78 ESAA Program was effectively developed and had a positive impact on its target populations. (Author/GC)

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FINAL REPORT

on

EVALUATION OF THE EMERGENCY SCHOOL AID ACT PROGRAM

of the

PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA

1977-78

Coordinated under the Direction of the Division of Research and Evaluation, Public Schools of the District of Columbia, Washington, D. C.

Contract Number: GA-78-CHI-J5A-00-W01-2554

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BACKGROUND

The Emergency School Aid Act Program (ESAA) of the Public Schools of the District of Columbia, consistent with Federal authorizing legislation, is addressed to three general problems associated with the very high degree of racial isolation in the community and school system: low scholastic achievement among students, inadequate employability skills among minority youth, and minimal opportunity for interracial/ intercultural contacts in the community and in the schools.

The Program began during the 1973-74 school year, and consists of four components: Career Education Project, Two-W Project, Special and Remedial Services Project, and Round Meadow Outdoor Laboratory School Project.

Under Contract with the Public Schools of the District of Columbia, effective February 8, 1978, Mediax Associates, Inc. undertook to evaluate the ESAA Program for 1977-78. Monthly progress reports were submitted to the system's Division of Research and Evaluation. A substantial Interim Report was submitted early in April, focussing on the processes of the four projects. It compared program activities under way in each project with its previously prepared Program Design, listed the schools involved in two projects the scope of which was considerably less than system-wide, and provided detailed descriptions and illustrations of program operations.

This Final Report uses findings of the Interim Report as the basis for summary descriptions of the four projects, but its main emphasis is on the impact of the projects' respective programs on participating personnel.

I. GENERAL APPROACH TO EVALUATION

This evaluation of the 1977-78 ESAA Program undertakes to answer these general question:

1. Were the program activities of the several projects conducted as planned?

2. Did the several target populations participate substantially in relevant program activities?

3. How do professional participants in the program evaluate its processes and outcomes?

4. Was there significant improvement in the academic achievement of students in those projects where such achievement was an avowed objective?

Evaluation questions #1 and #2 relate mainly to program processes, although the second is clearly relevant to outcomes. Questions #3 and #4 relate mainly on program impact.

The procedures of the evaluation were organized in two stages. The first, chiefly formative in purpose, focused mainly on program processes. The second, chiefly summative, focused mainly on program impact. There was, of course, some overlapping between these two stages.

Formative Evaluation

The Interim Report, reflecting developments through March, undertook to assess the extent to which the main procedures defined for the ESAA Program were being implemented effectively as planned. To this end, a Program Design was developed for each project, in cooperation with the project coordinator. It outlined specifically the major activities to be conducted under each component of the project (PROCESS), the human and material resources to be used with each such activity (INPUT), and the anticipated outcomes of the program activities (OUTPUT). The Program Design of each project was to serve as a guide both to program implementation and to evaluation.

On the basis of the Program Design, structured interviews were held with the central staff of each project and with relevant personnel in participating schools. The purpose was to determine whether planned programs were "in place" and, insofar as possible through such interviews, to identify strengths and weaknesses in program implementation. Findings, along with some recommendations, were reported to project coordinators through the Interim Report.

Summative Evaluation

This Final Report undertakes, among other things, to assess the impact of the ESAA Program--largely on the basis of judgements by participating students and professional personnel; and in the case of three of the projects, on the basis of students' before-and-after performance on achievement tests. Thus, this evaluation report is mainly summative in nature. Its procedures are described subsequently.

II. THE FOUR ESAA PROJECTS: PROCESS

There follow summary descriptions of the four ESAA projects based mainly on findings of the Interim Report, and supplemented by information obtained from project staffs during April, May and June.

Career Education Project

The Career Education Project undertakes to expand the knowledge and skills of students, parents, teachers, counselors and school administrators about careers and career opportunities. It seeks especially to help students make valid career choices and prepare for their chosen careers, largely through direct services and the integration of relevant learning in all areas of the carriculum. The program is conducted through a network of Career Education Resource Centers.

During 1977-78, a Career Education Resource Center (CERC) was operative in each of the 14 senior high schools and the 6 regional offices of the school system, the latter emphasizing services to elementary schools and junior high schools. These Centers were stocked with a wide range of career education materials--thousands of books, magazines, pamphlets, games, tapes, etc.--for use by students and professional personnel. The program of each Center was conducted under the direction of a Career Information Specialist.

Program activities of the Project were coordinated and assisted by a central staff that included a Project Coordinator, 2 subject-area Resource Teachers, 2 Career Information Specialists, an Administrative Secretary, and an Administrative Clerk. The services of consultants were obtained when needed.

The program of the Career Education Project included three components: Staff Development, Career Information, Guidances and Related Services to Students, and Community Involvement.

1. The Staff Development component, a major thrust of the Career Education Project, included a number of different types of activities.

   Workshops and seminars were conducted with school administrators and instructional staff, with emphasis on techniques for integrating career education in the different curricular areas. Illustrative is the 3-day workshop on "Management by Objectives", held in Hunt Valley, Maryland, during June.

Staff-development enrichment activities were conducted with Career Information Specialists.

Work-role activities were conducted with counselors who had no prior work experience outside the school system.

Direct assistance was provided to teachers and counselors.

Audio-visual display materials and curriculum materials in career education were produced by most of the centers.

Consultants were used to supplement staff guidance in many of these staff-development activities, and also in the community-involvement activities noted subsequently.

These and all other activities of the program were monitored continuously by central staff--through visits to the centers, and on the basis of required records of all events and monthly reports. An additional basis for assessment was the regular practice of asking participants to appraise the workshops they attended.

2. The Career Information, Guidance and Related Services to Students component supplemented students' use of CERC resource materials with many other kinds of services.

Career Information Specialists appraised students' interests and aptitudes, provided relevant information, and give career guidance, working with individuals and small groups. In the course of such activities, they drew upon data banks assembled in each center; administered occupational interest and other inventories; and guided students in the use of other diagnostic tools available in the centers.

The Career Information Specialists also conducted Employability Skills Mastery mini-courses in high schools. These were workshops in which students developed skills and insights in test-taking, decision-making, self-awareness, and career options. There were also job-preparation workshops, in which students developed the ability to perform effectively in employment interviews and to pass civil service and other examinations.

Another approach to giving students first-hand information about career planning and preparation was to organize "Rap Sessions" at which small groups of students interacted directly with representatives of the business community. Still another was to take students on field trips throughout the Washington-Baltimore area. Some 1,266 secondary students and 362 elementary students participated in such trips.

A large quantity of materials for use with students was produced by central staff and the several CERC's--audio-visual materials, "Study Tips", "Test-Taking" and "Decision-Making" course outlines, together with such other curriculum materials as "Tyson's Big Decision" and its sequel, the "Tanya Series". Further, a newsletter, The Journey, was prepared and distributed through the CERC's; and a series of Career "Demo-thons" were conducted during May in 7 high schools and 2 elementary schools.

The Career Education Project also supported student publication projects in the Literary Arts Program of the Lemuel Penn Career Center, including a magazine and several films. At the Ellington School for the Arts, where the Project maintained 8 teachers in the fine and performing arts, there was a school-wide program to acquaint students with career opportunities in the arts, along with training programs to help them prepare for such careers.

The scope of these services to students is suggested by the following summary for 16 CERC's visited by Mediax personnel during February and March and reported in the Interim Evaluation Report.

Program Activities	Aggregate Number of Participants
Career Guidance (individuals and groups)	71,841
Testing and Other Assessment	2,700
Mastery Courses	296
Special Training:	
Ellington School for the Arts	500
Lemuel Penn Center	307
Rap Sessions	42

3. The Community Involvement component emphasized the use of resource persons from the community in the Career Education Project (as in the "Rap Sessions" noted above), and also the participation of parents in the career development of their children. Some 77 parents and other adults, for example, accompanied students on the field trips previously mentioned, serving as chaperones, but at the same time, getting career information useful with their children.

Public events were another approach to community involvement, such as special programs in the schools during National Career Guidance week last fall. Illustrative also were the Project

staff's presentation on Career Education at the city-wide PTA meeting in May, and a series of Career Education Decision-Making Workshops conducted at community sites on Saturdays during May.

Still another approach was to assign speakers to discuss career opportunities and training at meetings of parents. All CERC's maintained speakers lists of persons available for this service, including representatives of business and industrial firms, university professors, governmental officials, armed forces personnel and others. The 16 centers visited during March reported that 57 speakers had been used in such meetings with 625 parents.

Two-W Project

The Two-W Project undertakes to retain and attract students to the public schools through reducing the effects of racial isolation in schools serving low-income populations, and through increasing integration in schools that serve middle-class populations. During 1977-78, the Project was conducted in 2 senior high schools, 6 junior high schools, and 30 elementary schools. Program activities were directed and monitored by a central staff consisting of a Project Coordinator, 2 Skills-Development Coordinators, an Alternative Programs Coordinator, a Community Relations/Publicity Coordinator, an Administrative Secretary, and Administrative Officer and an Administrative Assistant.

The program of the Two-W Project included four components: Skills Development, Alternative Programs, Staff Development, and Community Relations and Publicity.

1. The Skills Development component sought to improve achievement in reading and/or mathematics among students performing one or more years below grade level. The program operated through skills centers in reading and mathematics in 2 senior high schools, 6 junior high schools, and 9 elementary schools.

   The skills center in each school was staffed by a reading teacher and a mathematics teacher, together with a full-time tutor helping both teachers. Available to them was a wide range of instructional-related materials -- tests, student record books, workbooks, texts, films, cassettes, duplicating masters, games, manipulatives, and others.

Students achieving one year or more below grade level in mathematics or in reading were identified, mainly on the basis of standardized tests, and assigned to skills centers for 45 minutes a day in elementary schools, mostly in small class groups of 15 to 20 students. In two skills centers on the elementary level, using the "Total School Approach", teachers in grades 4, 5 and 6 brought their entire classes to the skills centers for reading and mathematics, using diagnostic/prescriptive instruction.

Competency-based individualized instruction prevailed in all skills centers. Students' respective learning needs were diagnosed. They worked independently or in small groups to strengthen specified skills, using instructional materials selected by the teachers. When they demonstrated mastery of these skills on a posttest, they proceeded to work on another set of specified skills.

During the last week of May, 1978, there were 1,906 students enrolled in the skills center program, 836 in reading and 1,070 in mathematics. Forty-seven per cent of these students were in elementary school, 46 per cent in junior high school, and 7 per cent in senior high school.

The specific objective set for the skills-development program was to raise the scores of target students in reading and mathematics by one grade level. Standardized achievement tests, pretest and posttest, were administered to determine the extent to which this objective was accomplished.

The Alternative component of the Two-W Project provided elementary and secondary students with interesting and educationally valuable experiences that supplemented their regular instructional programs. The general purpose was to broaden students' interests and knowledge beyond what is common in racially-impacted areas, and at the same time to enhance their motivation and achievement in school. Included in this component were 6 different programs.

The Elementary Enrichment Package provided trips for students to a wide range of places and events in Washington, D.C., involving many areas of the culture--history, the arts, the environment, science and technology, and others.

The New York Times Mobile Reading Program used that newspaper for instruction with students in grades 5 and 6 and in junior and senior high school. Each participating student received the paper for 50 school days, along with a monthly supplement. Workshops for participating teachers were conducted by representatives of the newspaper, emphasizing techniques for using The Times in different curriculum areas.

The Embassy Adoption Program introduced students in grades 5 and 6 to the cultures of other countries through interaction with their embassies. During 1977-78, each of 23 embassies "adopted" a class of students and engaged them in varied experiences relating to their respective countries--film presentation, arts and

crafts, discusisons of religions, foods and other culture traits, songs and dances, pen-pal correspondence, and others.

The Secondary Internship Program provided interesting, one-day-a week work experiences in a dozen public and private agencies for selected junior and senior students in two senior high schools. Their work experiences involved research and writing, typing and filing, assisting teachers, cataloguing historical documents, attending meetings and much more. Participating agencies included the National Collection of Fine Arts, D. C. Bar Association, City Council, House of Representatives, American Civil Liberties Union, National Commission on Working Women, Ford's Theatre, WEAL Fund, Chevy Chase Baptist Church Day Center, D. C. Board of Education, School of Special Education, and American Society for International Law.

The Audubon Naturalist Environment Program involved 4th, 5th and 6th grade students at one school in exploring their own natural environment, the City. Under leadership provided by the Audubon Society, groups of 6 or 7 students went on outdoor trips to study the natural history and interdependence of living and non-living things found on the school ground, street or alley.

The Washington Technical Institute Orientation Program, begun during the spring semester, was addressed to secondary students with special interests and superior performance in mathematics, industrial arts and science. Such students, a few at a time, were selected from the five Two-W junior high schools and Randall Senior High School to spend a day at the college. There they participated in a workshop on recent trends and career opportunities in scientific and technical fields. They also toured the campus, and became informed about the program of Washington Technical Institute.

The scope of these alternative/enrichment programs is suggested by the following summary of participating schools and students.

Program	No. of Schools	No. of Students
Elementary Enrichment Package	29	4,160
N.Y.T. Mobile Reading Program	16	606
Embassy Adoption Program	24	720
Secondary Internship Program	2	29
Audubon Naturalist Environment Program	1	30
Washington Technical Institute Orientation Program	6	40

3. The Staff Development component provides experiences of several kinds for school and related personnel in the Two-W Project.

An orientation session was held early in the fall with teachers and tutors in the skills centers, and follow-up workshops amd demonstrations were conducted throughout the year.

Three formal inservice courses for classroom personnel in Two-W schools were conducted during the year -- Diagnostic/Prescriptive Teaching of Reading, a Manipulative Approach to Teaching Mathematics, and Classroom Management for Secondary School Teachers. A carefully prepared syllabus, including specific objectives, was used in each course, along with a variety of materials for distribution to students. A test reflecting objectives was administered to the participating teachers at the beginning and end of each course. Forty-three teachers completed these courses.

An "Open House' was held in the fall, where the several programs of the Two-W Project were interpreted through slides, demonstrations and other means to parents, teachers and administrators. Also at that event, a panel of school administrators discussed the school system's thrust toward development of the competency-based curriculum.

The staff-development component also assisted the three administrative regions served by the Two-W Project (II, V and VI) to plan and conduct a series of workshops for parents and school administrators on the competency-based curriculum and on the teaching of reading and mathematics.

4. The Community Relations and Publicity component disseminated information related to the Two-W Project to teachers, students and parents in participating schools, and to community organizations and individuals. The purpose was to develop broad understanding and support of the Project, and thereby to enhance its effectiveness.

   Four issues of the Two-W NEWSLETTER were distributed to a mailing list of about 1,500 persons and organizations.

   Two-W: WHAT'S HAPPENING, a monthly bulletin of from 2 to 6 pages, was distributed regularly to about 200 principals, P-T-A leaders, student leaders and others.

   WHAT IS TWO-W?, a four-page brochure distributed to several hundred persons and organizations, interprets the goals and program of the Project.

   In addition to issuing these publications, the Community Relations and Publicity component sent press releases to NEWSLETTER editors in participating schools and to the city-wide media, made some slide presentations to professional and community groups, and visited some of the Two-W schools to obtain first-hand information about their interests, needs and programs.

Special and Remedial Services Project

The Special and Remedial Services Project is designed mainly to serve the needs of students in non-public schools who are deficient in basic skills, but it also serves such students in several public schools. During 1977-78, the Project operated in 14 Catholic elementary schools, 7 Catholic high schools, and 9 public elementary schools. Its central staff consisted of a Project Coordinator, an Assistant Project Coordinator, an Administrative Clerk, and an A-V Production Assistant.

The program of the Special and Remedial Services Project included three components: Basic Skills Development, Bilingual/Bicultural Education, and Staff Development.

1. The Basic Skills Development component sought to improve achievement in reading and mathematics among students performing one year or more below grade level. Target students were selected last fall, mainly on the basis of standardized tests, but in some cases also on the recommendation of regular classroom teachers. Small classes of these students were organized during October, with sessions ranging from 35 to 60 minutes among participating schools.

Instruction in reading and mathematics was provided these students by a core of 24 itinerant teachers on the staff of the Project. The prevailing pattern was to identify individual students' learning needs through administration of a formal or informal diagnostic test; to work with individual students to strengthen needed skills, usually in groups of five or fewer; and then to retest the students with formal or informal instruments. As students progressed, this cycle was repeated on higher and higher levels of skills development.

The date of mastery was recorded for each student on an extensive, graded check-list of skills, in both reading and mathematics. Folders of these records were kept for all students, and were made available to regular teachers in the participating schools.

The Special and Remedial Services Project also set the objective of raising target students' scores in reading and mathematics by one grade level. The extent to which it was accomplished was measured on the basis of students' pretest and post-test performance on standardized achievement tests.

2. The Bilingual/Bicultural component of the Special and Remedial Services Project, limited to two Catholic elementary schools, provided special skills-development services to non-English-speaking students, and involved them with English-dominant students in bicultural activities.

The target students, all Spanish-dominant, were identified in September through administration of the Bilingual Syntax Test and the Linguistic Teacher's Assessment Test. They were organized in special classes, where basic-skills instruction was given in both Spanish and English. In each school, these classes were taught by a special bilingual teacher and two regular teachers, working as a team.

Bicultural activities in these schools consisted mainly of monthly meetings of English-dominant and Spanish-dominant students for discussions of common and different features of their respective cultures.

3. The Staff Development component consisted of a series of sessions conducted by central staff with teachers in the Special and Remedial Services Project. Plans for these sessions were based on teachers' responses to a needs-assessment inquiry form, together with classroom observations.

Round Meadow Outdoor Laboratory School project

The Round Meadow Outdoor Laboratory School Project seeks to help alleviate the adverse effects of racial and cultural isolation by providing students with innovative, one-week learning experiences in a camp setting (at Catoctin Mountain Park, Lantz, Maryland), with follow-up activities in their regular schools. During 1977-78, the program involved 6th grade classes from more than 100 public elementary schools.

The central staff consisted of a Project Coordinator, a Camp Director, an Administrative Aide, an A-V Coordinator, and 5 itinerant teachers, the latter based at the central office and working directly with participating schools. In addition to the Director, camp personnel included 5 resident teachers, 8 counselors, and 1 nurse.

Four classes of students from four different schools were transported to the Round Meadow Camp each Monday morning, and back to their schools the following Friday evening.

Facilities at the camp include dormitories for boys and for girls, with classrooms on the lower levels of these structures. There is also a handsome multi-purpose gymnasium, with facilities

for dancing, various sports and tournaments. Most notable, of course, is the beautiful outdoor setting.

The program of the Outdoor Laboratory School Project includes four components: Basic Skills Development in a Camp Setting, School-Based Follow-Up of the Camp Skills Development Program, Interracial/Intercultural Program in a Camp Setting, and School-Based Follow-Up of the Camp Interracial/Intercultural Program.

1. The Basic Skills Development in a Camp Setting component provided campers with formal instruction in science and social studies. Classes were composed of students from different schools, and were conducted mainly through independent study and teacher-led discussions. Each student attended classes each day, and spent about 18 hours during the week in academic instruction.

The content in which skills-development instruction proceeded was heavily weighted with ecological/environmental knowledge, and drew upon students' hikes on the countryside and visits to places of historical and cultural interest in the vicinity of the camp.

2. The School-Based Follow-Up of the Camp Skills Development Program consisted mainly of classroom instruction in several ecological areas, with continuing emphasis on the development of students' skills in reading and mathematics. There were also field trips related to the ecological content of the instructional program.

These follow-up activities were concentrated in 24 participating schools, and included non-campers as well as students who attended the camp.

3-4. The Interracial/Intercultural Program components, at camp and afterward in the follow-up schools, were limited in their effort to provide integrated experiences by the very small numbers of non-Black students involved.

At the camp, students participated in a wide range of activities -- arts and crafts, Indian lore, field trips, sports, campfire, and others.

Post-camp follow-up activities at school consisted mainly of assembly programs on ecological themes. There were also field trips to cultural centers and to other schools, and, at some schools, weekly clean-up projects in the neighborhood.

The last three weekly groups of students attending the camp, during May and June, were administered a "Student Inventory" before and after the camp experience, the purpose being to assess changes in their attitudes and knowledge.

Some Generalizations

The process evaluation of the ESAA Program, as noted in the Interim Report, warrants several generalizations.

First, although there were notable problems of implementation, the program of each project was "in place". With only minor exceptions, program activities were being conducted as planned in the Program Design at the time of the Interim Report, and continued so throughout the school year.

Second, both the central staffs and the participating school personnel interviewed were enthusiastic and generally satisfied with the conduct of the programs, even though many of them noted problems warranting attention.

Third, the major limitation identified in the Career Education Project was the lack of an on-going process for evaluating program effects on participating students. The central staff regularly assembled data on program activities and on the numbers of persons involved; but apparently there was no continual assessment of how the program was affecting students, admittedly a difficult thing to do. The several components of the Project were being implemented as planned.

Fourth, two general problems were identified in the Skills-Development component of the Two-W Project: Inadequate space and low attendance among students. There was also the expressed need among skills-center teachers for a full-time tutor to work with each the mathematics teacher and the reading teacher, rather than the current practice of sharing a tutor between them on alternate days. No significant problems were identified in the other three components of the Two-W project.

Fifth, although all program components of the Special and Remedial Services Project were being implemented, the Bilingual/Bicultural component and the Staff-Development component seemed unduly limited in scope. Moreover, the Basic Skills Development component confronted two general and important problems: work-places (lounges, xerox rooms, etc.) were seriously inadequate in many schools; and regular teachers in some non-public schools did not cooperate with--indeed, showed indifference or hostility toward--the staff-based itinerant teachers providing remedial instruction for their students.

Sixth, although all components of the Outdoor Laboratory School Project were "in place", several limitations were evident in their implementation. When interviews were conducted for the Interim Report, there appeared to be inadequate articulation between the camp program and the school-based follow-up program, with some teachers in the latter seemingly uniformed about the specific nature of the camp experience. The scope of the follow-up program was meager in some schools. And the fact that the evaluators were late in designing the "Student Inventory" limited before-and-after assessment of campers' development to the last three weeks of the school year.

Overall, it may be generalized that all of the major activities of the 1977-78 ESAA Program were conducted as planned in the Program Design, but that there were notable problems and limitations in the implementation of some of them. Assessment of the Program's impact is the subject of the remainder of this report.

III. IMPACT EVALUATION PROCEDURES AND DATA

The target populations of the ESAA Program include students, several categories of professional personnel, parents and other persons in the community. Ideally, assessment of the program's impact would be based on objectively identified changes in the behaviors of all of these receptors, clearly linked to program treatments. Such an assessment is not here possible, not only because of limitations in the resources available to this project, but also limitations in the state of the art. Thus, this assessment of program impact rests on much more modest foundations.

Three general approaches were used, with variations among the several projects.

First, effort was made to determine the extent to which selected categories of professionals and students participated in the program activities of the several projects, the assumption being that such participation is prerequisite to program impact.

Second, participating professionals and students were surveyed to determine their subjective evaluations of their experiences in the program, expressed anonymously. The premise is that these participants are able and willing to identify programmatic strengths and weaknesses, and also to judge how they were affected by the program.

Third, in three projects, students' performance on achievement tests before and after treatment were compared, the differences in one project being related to the duration of treatment. The findings of these analyses probably constitute the most satisfactory basis available for assessing program effects.

It should be noted that the first two approaches address not only the question of program impact, but also to some extent the related question of program process.

The specific instruments and procedures used are described in relation to the several ESAA projects. General procedures included the following: (1) Inquiry forms were prepared by the evaluators, reviewed by the project coordinators, and approved by the Assistant Superintendent, Division of Research and Evaluation, Public Schools of the District of Columbia. (2) Inquiry forms were mailed individually to several categories of professionals during the last week of May and the first week of June. (See copies in Appendix B). (3) Each such form was accompanied by a

letter or introductory note from the Assistant Superintendent, requesting cooperation. (4) Each such form was also accompanied by a return envelope addressed to the Division of Research and Evaluation. (5) Because of the relatively small number of forms returned by July 7, the Assistant Superintendent then sent a follow-up letter to selected categories of professional personnel. (6) The forms returned to the Division of Research and Evaluation were turned over to the evaluators, unopened, for tabulation and analysis.

Data for All Four Projects

An inquiry form (A-1, a, b, c, d) was sent to school administrators, requesting information and judgements about each ESAA project operative in their schools during 1977-78. The form was distributed to 113 administrators, representing all of the schools in which one or more of the projects were conducted -- 81 in public schools and 32 in Catholic schools. Responses were received from 62 (55%) of them.

Data for the Career Education Project

Form CE-1 was sent to a random sample of 362 of the 1,104 teachers and counselors in the schools where the ESAA Career Education Project was conducted, representing approximately one-third of the total. The sample was drawn by selecting each third name listed for each participating school in a computer print-out of relevent personnel. Sixty-three (17%) of the forms were returned.

Form CE-3 was sent to all 18 of the Career Information Specialists working in the project. Twelve (67%) of the forms were returned.

Form CE-2 was distributed -- for administration by Career Information Specialists -- to the "largest" class on each grade level (4 through 12) in each of 12 senior high schools, 6 junior high schools, and 9 elementary schools. One class was selected from each of the 27 participating schools, providing a matrix sample consisting of the following:

Grade 12	-	4 classes (in 4 schools)
Grade 11	-	4 classes (in 4 schools)
Grade 10	-	4 classes (in 4 schools)
Grade 9	-	3 classes (in 3 schools)
Grade 8	-	3 classes (in 3 schools)
Grade 7	-	3 classes (in 3 schools)
Grade 6	-	2 classes (in 2 schools)
Grade 5	-	2 classes (in 2 schools)
Grade 4	-	2 classes (in 2 schools)

Each class in the matrix sample, it should be emphasized, was in a different school.

Responses were received from 10 classes of students on different grade levels in 10 schools, together with a mixture of three grade levels in one other school, as follows:

Grade 12	-	1 class
Grade 10	-	1 class
Grades 10, 11 and 12		(in 1 school)
Grade 9	-	1 class
Grade 8	-	2 classes (in 2 schools)
Grade 7	-	1 class
Grade 6	-	1 class
Grade 5	-	1 class
Grade 4	-	2 classes (in 2 schools)

Data for the Two-W Project

Form 2W-1 was sent to 29 teachers and tutors in the 17 skills centers. Eleven (38%) of them were returned.

Form 2W-2 was sent to a random sample of 253 of the 790 regular teachers in schools where the Two-W Project was conducted, representing approximately one-third of the total. This sample, too, was drawn by selecting the third name listed for each participating school in a computer print-out of relevant personnel. Sixty-three (25%) of the forms were returned.

Form 2W-3 was sent to approximately 1,000 persons who read the Project's NEWSLETTER, by enclosing it in the May issue. Responses were received from 195 persons.

Pretest and posttest scores on teacher-made examinations given to professional participants in three staff-development courses offered in the Two-W Project were obtained from the Coordinator.

Students participating in the Skills-Center program of the Two-W Project were administered pretests and posttests in reading and mathematics in grades 4, 5, 6, 8 and 9. The Stanford Achievement Test was used with students in grades 4, 5 and 8; and the Comprehensive Test of Basic Skills was used with students in grades 6 and 9. The tests were administered by public school personnel and machine-scored.

The pretests for grade 8 were administered in late March and early April, 1977, and the posttests in May 1978, representing a span of about 13 months, including the summer vacation.

The pretests for grades 4, 5, 6 and 9 were administered in October, 1977, and the posttests in May, 1978, representing a span of about 7 months.

On the basis of print-outs of test results, pretest and

posttest scores were recorded for each participating student by central staff and skills-center teachers in the Project. The record forms, designed in cooperation with the evaluators, indicate for each student the number of days serviced, pretest and posttest raw scores, and pretest and posttest grade equivalents. Raw scores were used in this analysis for grades 4, 5 and 8; and grade equivalents (the only scores available) were used for grades 6 and 9. Only students "identified" last fall as achieving one or more years below grade level were included in the analysis.

There follows a summary of the numbers of such students for whom both pretest and posttest scores are available, by subjects and grades.

Grade	Reading	Mathematics
4	254	92
5	256	216
6	285	187
8	424	392
9	722	635
Total	1,941	1,522

Also available for the Two-W Project are the evaluative responses of students, teachers and community agencies to inquiry forms distributed and assembled by project personnel. They relate to four of the Two-W Alternative and Enrichment programs -- Elementary Enrichment Package, Embassy Adoption Program, New York Times Reading Program, and Secondary Internship Program.

Data for the Special and Remedial Services Project

Form SRS-1 was sent to all 24 of the itinerant teachers providing remedial instruction for students in the Special and Remedial Services Project. Nine (37%) of them were returned.

Participating students in grades 1 through 12 were administered pretests and posttests in reading and mathematics. The Stanford Achievement Test was used for mathematics, and the Metropolitan Achievement Test for reading. A few of the students were tested with other instruments.

The pretests were administered by school personnel in September, 1977, and the posttests in May, 1978, representing a span of about 8 months.

On the basis of print-outs of test results, the central staff of the Project recorded each student's pretest and posttest raw scores, together with grade equivalents, using record forms agreed upon by the Project Coordinator and the evaluators. Only the raw scores were used in this analysis.

The records for 47 of the students tested were not used -- 20 because comparable pretests and posttests were not available, and 27 because scores were based on tests other than SAT and MAT.

The numbers of students for whom comparable pretest and posttest scores are available are noted below, by grade and subject.

Grade	Mathematics (SAT)	Reading (MAT)
1	11	0
2	38	11
3	42	52
4	62	87
5	70	107
6	68	108
7	58	67
8	25	53
9	21	146
10	8	57
11	4	20
12	11	17
Total	418	725

Data for the Round Meadow Outdoor Laboratory School Project

Form OLS-2 was sent to all 15 of the staff persons based at the Round Meadow Camp. Only one of them responded.

Form OLS-3 was sent to all 5 of the "school-based teachers"

attached to the central staff of the Project. Only one of them responded.

Form OLS-4 was sent to all 24 of the regular classroom teachers involved in the Project's post-camp, follow-up program. Fourteen (58%) of them responded.

Form OLS-1, the "Student Inventory" designed by the evaluators in cooperation with the Project Coordinator, was administered by Project personnel to several groups of students who attended the Round Meadow Camp during May and June, both before and after the camp experience. The instrument was also administered, for the purpose of comparison, to several groups of students who attended camp last October, and to other groups of students who did not attend the camp. There follows a summary of the numbers of students to whom the "Student Inventory" was administered.

Group	Number of Schools	Number of Students	Pretest Dates	Posttest Dates
A. Spring campers, during the weeks of:				
May 22	4	64	5/17 to 5/19.	6/1 for 1 school; none for 3 schools.
May 30	4	66	5/18 to 5/31.	6/7 to 6/18.
June 5	4	53	5/30 to 6/1.	6/12 to 6/14 for 3 schools; none for 1 school.
B. Fall campers, during the weeks of:				
October 3	1	20	none	5/30
October 11	1	24	none	5/31
October 25	2	39	none	6/5 and 6/7
C. Non-campers	2	38	none	6/1 and 6/8

It should be noted that, because both pretest and posttest responses are not available for all of the spring campers involved, and because test sheets were blank in a few cases, the actual numbers of students for whom usable test sheets are available are somewhat smaller than the above tabulations suggest. The analysis is based on the numbers of students indicated below:

	Pretest	Posttest
Spring Campers	165	115
Fall Campers	-	77
Non-Campers	-	38

It should also be noted that the numbers of students for whom usable responses are available differ still further for the True-False and the Matching sections of the Student Inventory.

These several groups of data are comprehensive and extensive. Together, they provide a substantial basis for assessing the impact of the ESAA Program.

IV. THE FOUR PROJECTS: IMPACT

The findings revealed by the analysis of each group of impact data are here presented and interpreted for each of the ESAA projects. The appraisals of the projects by professional participants are set forth in considerable detail, more than is necessary for this report. The purpose is to put all assessments "on record" for study by program planners.

The analyses are organized around responses to the several inquiry forms described in Section III, where the numbers and percentages of forms returned are reported. As previously noted, the inquiry forms are reproduced in Appendix B.

Career Education Project

As noted previously, data suggestive of the impact of the Career Education Project consist of information and judgments from school administrators, teachers and counselors, Career Inforamtion Specialistis, and students in grades 4 through 12. Each group of data is analyzed separately.

School Administrators

School principals were asked (on Form A-1b) whether the ESAA Career Education Project was conducted in their schools during 1977-78, and, if so, to assess the Project on five bases - (1) special problems encountered in conducting the Project in their schools, the Project's (2) main strengths and (3) main weaknesses, (4) suggestions for improvement, and (5) the educational value of specified elements of the program. Thirteen inquiry forms were returned by officials in schools where the Career Education Project was operative -- 11 principals, 1 director, and 1 counselor. Not all of them reacted to all of the items of the inquiry form.

Seven of the respondents reported that they encountered no important problems in the conduct of the Project. Four others reacting to this item mentioned one problem each -- transportation difficulties, unavailability of a project contact person, inadequate follow-up by classroom teachers of project activities, and too much involvement with career education by counselors on the elementary level.

The main strengths identified by responding administrators (and their respective frequencies) include available resources and materials (7), providing students with experiences relating to different careers (5), developing self-awareness among students (3), use of community persons who have successful careers (2), career-related field trips (1), project support to regular teachers (1), the Career Demo-Thon Day (1), preparing students for work (1), and the involvement of parents (1).

Two respondents said they saw no main weaknesses in the program. Three noted limited access to and use of the regional centers, one citing inadequate funds for transportation as the cause. Other weaknesses mentioned, each with one frequency, include insufficient personnel, too limited time-allocation for program activities, failure of teachers to use the career education information provided them, no system for instant retrieval of needed information, no systematic method for students to use materials and services, and

excessive use of school counselors in the program.

The administrators offered a variety of suggestions for improving the Career Education Project, many of them reflecting the strengths and weaknesses they perceived. Two respondents suggested more use of monitors and more publicity for the program. Two suggested more time for career education lessons. Two others suggested more involvement of classroom teachers, and the assignment of staff liaison persons to work with them. Eleven other suggestions, with one frequency each, include: develop career education on the elementary level; provide aides in the resource centers; install a computerized information-retrieval system; hold a special "World of Work/Career Readiness Day"; conduct the career "Demo-Thon" in both the fall and the spring; conduct mini-courses for teachers and community persons; provide demonstration lessons; organize Career Education Study Groups; continue the decision-making workshops; develop plans for career education at the building level; and provide funds for transporting students to the CERC's (presumably students below the senior high school level.)

The frequencies with which the administrative respondents assigned different educational-value ratings to specified aspects of the Career Education Project are tabulated below.

Value Rating	Career Educ. Resource Center	Role of C.E. Info.Spec.	Help to Teachers	Help to Students
Very great value	6	6	-	3
Great value	2	1	5	3
Substantial value	1	2	4	2
Little value	2	1	-	1
No value	-	-	1	-
No basis for judgment	1	2	2	2
	12	12	12	11

Overall, these several groups of responses show that a positive assessment of the Career Education Project predominates among the school administrators who returned inquiry forms. They perceive none or few problems in the conduct of the program in their schools. Most of the main weaknesses they note relate to inadequate access to or use of the materials and services provided. The main strengths most of them list correspond to the central purpose of the program -- to provide materials and services that enable students to develop self-awareness and knowledge about different careers. Most of their suggestions call for continuation or further development of the program along existing lines.

Moreover, the administrators' ratings of the educational value of four aspects of the program are strongly skewed toward the upper end of the scale. Indeed, of the 40 ratings reported above (excluding "No basis for judgment"), 26 (65.0%) are for "Very great value" and "Great value"; and an additional 9 ratings (22.5%) are for "Substantial value." Only 5 of the ratings (12.5%) are for "Little value" or "No value."

Teachers and Counselors

Teachers and counselors involved in the Career Education Project were asked (on Form CE-1) to indicate and evaluate (1) the different program activities in which they participated "one or more times", and (2) the project services they used; to identify the program's main (3) strengths and (4) weaknesses; to offer (5) suggestions for improvement; and (6) to assess the overall effectiveness of the program. The responses of the 63 teachers and counselors who returned the inquiry form are shown by school level in Table 1.

The 4 activities and 7 services specified in Table 1 were listed on Form CE-1. "Others", with very small frequencies, were added by senior high school respondents; and they largely overlap the activities listed.

It may be seen from Table 1 that between 38 and 49 per cent of the teachers and counselors reporting say that they participated one or more times in staff-development activities #1 to #4.

Proportionately more of them took part in workshops and sessions on instructional materials than in sessions on instructional plans or strategies.

The services of the Career Education Resource Centers that were used most frequently by these respondents are films and other media (54%) and resource speakers (48%).

Consultation with Career Information Specialists (#11) on individual students' needs (41%) and "other instructional materials" (38%) rank second and third among the eight services in frequency of use. Least frequently used were consultation with CIS's on instructional problems (33%) and "other community resources" (17%).

The value-ratings these participating teachers and counselors assigned to the several activities and services are shown in Table 2.

It may be seen from Table 2 that between 44 and 52 per cent of the respondents rated the four specified staff-development activities as of "Great" or "Very great" value. Relatively few gave them "No" or "Little" value ratings. Similarly, between 50 and 69 per cent of the respondents rated services #6 to #11 as of "Great" or "Very great" value; only consultation with CIS's on instructional problems was given proportionately fewer of such ratings. Here also, "No" or "Little" value ratings were given to very few of the services.

The staff-development activities and resource services specified in Tables 1 and 2 were assessed by project personnel as being of special importance to the program. Judging from responses to this inquiry, it appears that very substantial numbers of teachers participated in these activities during 1977-78, and that they found almost all of them to be of considerable value.

Table 1

Number and Per Cent of ESAA Career Education Staff-Development Activities and Services Participated in by 63 Teachers and Counselors in Senior High School and Elementary School.[a]

Staff-Development Activities and Services	Number Participating Sr. H.S.	Elem. S.	Total	Percent of 63 Respondents Participating
A. Activities				
1. Workshops	28	3	31	49
2. Sessions on instructional materials	28	3	31	49
3. Sessions on instructional plans	23	2	25	40
4. Demonstrations of instructional strategies	21	3	24	38
5. Four Others	5	-	5	8
B. Services of Resource Center				
6. Field trips to government, industry, etc.	15	2	17	27
7. Resource speakers	28	2	30	48
8. Other community resources	9	2	11	17
9. Films or other media	29	5	34	54
10. Other instructional materials	20	4	24	38
11. Consultation with Career Information Specialist on individual students' needs	23	3	26	41
12. Consultation with Career Information Specialist on instructional problems	17	4	21	33
13. Four others	4	-	4	6

a. Inquiry forms were returned by 58 teachers and counselors in senior high school, none in junior high school, and 5 in elementary school.

Value Ratings of Career Education Staff-Development Activities and Services by 63 Participating Teachers and Counselors

Staff-Development Activities and Services	Number rating: No Value	Little Value	Ample Value	Great Value	Very Great Value	Total	Per Cent "Great" or "Very Great"
A. Activities							
1. Workshops	1	5	9	13	3	31	52
2. Sessions on instructional materials	1	6	11	9	5	32	44
3. Sessions on instructional plans	-	4	9	7	5	25	48
4. Demonstrations of instructional strategies	1	1	10	7	5	24	50
5. Four others	-	-	1	3	1	5	80
B. Services of Resource Center							
6. Field trips to government, industry, etc.	1	1	3	4	7	16	69
7. Resource speakers	1	2	12	9	6	30	50
8. Other community resources	-	2	2	4	3	11	64
9. Films or other media	-	3	12	10	9	34	56
10. Other instructional materials	1	2	5	10	6	24	67
11. Consultation with Career Information Specialist on individual students' needs	-	4	6	7	9	26	62
12. Consultation with Career Information Specialists on instructional problems	1	1	10	5	4	21	43
13. Four others	-	1	1	1	1	4	50

The teachers and counselors who returned Form CE-1 listed 18 more or less different "main strengths" of the Career Education Project, 23 "main weaknesses", and 34 "suggestions" for improvement. Sixty-four per cent of them have frequencies of one. The range of respondent's ideas, as here abridged, is shown by the following lists, with frequencies of more than 1 noted in each case.

The main strengths listed by respondents include:

1. Many excellent career education materials (11).

2. Resource center available to individual and small groups of students, teachers and administrators (10).

3. Specially-trained, multi-talented Career Information Specialists (8).

4. Exposure of students and teachers to career information and opportunities (7).

5. Career Information Specialists' visits to classrooms, information to students, assistance to teachers (5).

6. Conferences with and speeches by outside representatives of different careers (4).

7. Emphasis with students on relationship between school, adequate preparation and the world of work (3).

8. Opportunities for counseling students (2).

Several additional strengths were noted by one respondent each. They relate to opportunities for students to explore various career fields, help to students in finding jobs, staff-development services to teachers, and general strengthening of the school program.

The main weaknesses listed by respondents include:

1. Confusion and overlapping of career education, guidance and other services; lack of coordination (6); limited teacher involvement (2).

2. I had no knowledge of the ESAA Career Education Project and its services; would have used them if informed (5).

3. Non-availability of career education materials and information to teachers, especially in schools away from the Resource Center (5).

4. Inadequate staff to serve large numbers of teachers (2).

5. Little communication between Career Information Specialist and teachers (2).

6. Reource room too small for a whole class; basement location inappropriate (2).

7. Activities take students out of class too often; distraction from other dire needs of students (2).

Additional weaknesses noted by one respondent each relate to the lack of full participation by teachers and parents and school administrators, limited number of students involved, inadequate interpretation of the program to the community, and lack of special services to handicapped students.

The Suggestions for Improvement listed by respondents include:

1. Publicize career education programs and materials available early in school year (4).

2. Provide on-going contact between career education specialist and classes of students (4).

3. Integrate career education with guidance and other related programs (4).

4. Have specialists teach a one-semester course on career education, with credit (3).

5. Have Career Information Specialist make direct contacts with students, without bothering the teacher (3).

6. Have staff-development sessions involving the whole school staff (2).

7. Have every teacher include career education in instructional program twice a month (2).

8. Include all students in the program; don't pick some (2).

9. Assess needs of teachers and students, and plan program accordingly (2).

10. Keep teachers aware of program throughout the year (2).

A wide range of suggestions for improvement were offered by one respondent each. They relate mainly to provision of more materials and expanded services, modification of schedules for the conduct of career education in the schools, expanded public relations activities, and special services to the physically and mentally handicapped.

The comparative strengths and weaknesses of the Career Education Project do not emerge sharply from the above lists. It is clear, however, that the materials available in the Career Information

Resource Centers and the services given to students and teachers by the Career Information Specialists are assessed by respondents as most notable among the Project's "main strengths." The "main weaknesses" listed above relate chiefly to the limited accessibility of these resources and services to some teachers and counselors. Also emphasized as a weakness are problems of coordinating the Project's services with those of related programs in the same schools. Although the "suggestions" offered by these respondents include a very wide range of specific proposals, their main thrust is toward the expansion of on-going career education services and the introduction of resources and procedures to make them more accessible to teachers and students. Thus, all three sets of ideas -- "strengths", "weaknesses" and "suggestions" -- tend strongly to confirm the previous finding that participating teachers and counselors have predominantly positve attitudes toward and high appraisals of the Career Education Project.

Further evidence in this regard is afforded by participating teachers' and counselors' "overall assessment of the Program's effectiveness in serving students' career-education needs." The distribution of effectiveness-ratings by the 63 respondents (58 of them in senior high school) is shown below.

Degrees of Effectiveness	Number of Responses	Percent of Subtotal
a. Not at all effective	3	6
b. Minimally effective	12	23
c. Substantially effective	17	33
d. Highly effective	16	31
e. Extremely effective	4	7
Subtotal	52	100
f. No basis for judgment	11	-
Total	63	

Among the 52 respondents rating the overall effectiveness of the Career Education Project, 38 per cent assessed it as "highly" or "extremely" effective, and 71 per cent said it was either "substantially" or "highly" or "extremely" effective. Along with this predominantly positive appraisal of the Project, however, is the judgment of 29 per cent of the respondents that it was "not at all" or "minimally" effective.

Career Information Specialists

The Career Education Specialists (CIS) in the Career Education Project were asked (on Form CE-3) to list what they consider the main strengths and weakness of the Project, together with

their suggestions for making it more effective. They were also asked to list what they consider the 3 "most effective" and 3 "least effective" program activities of the Project, and the "professional-development needs" they perceive as important for improving their own effectiveness. The reponses of the 12 CIS's who returned the inquiry form are summarized below.

The main strengths listed by the CIS's, with their respective frequencies are:

1. Cooperative staff-development activities of Project staff (6).
2. Program activities and resources provided, especially field trips, and other A-V materials, curriculum guides, and workshops (5).
3. High level of expertise of the Project staff (4).
4. Realistic, up-to-date information on careers provided for students (4).
5. Flexibility in adapting materials to "fit" students' varying needs (3).
6. Use of local community, business and governmental resources (2).
7. Assistance to students in choosing careers, including individual and group counseling (2).
8. Motivation stimulated in students (2).
9. Black students made aware of career opportunities and the relation of school and the world of work (1).

The main weaknesses listed by the CIS's, together with frequencies, are:

1. Lack of adequate funds and assurance of continuation (6).
2. Program not flexible enough to use varied special talents of CIS's (3).
3. Inadequate public relations; community and some school staff unaware of services available (2).

Weaknesses noted by one respondent each relate to inadequate services to special-needs students, problems of scheduling, procedures in ordering materials, and selection of staff persons to attend conventions and participate in special programs.

The suggestions for improvement offered by the CIS's, with their frequencies are:

1. More staff assistance to regional CIS's in providing services to elementary and junior high schools (3).

2. More publicity for programs activities and accomplishments (2).

3. Have CIS work with heads of academic departments (2).

4. More visits by central staff to resource centers (2).

Additional suggestions listed by one respondent each include more funds for the career education program, its incorporation as a permanent part of the D. C. school system, an on-going testing program, improved scheduling, increased recognition and support of staff by school administrators, services for the handicapped, and clearer differentiation between goals for elementary and secondary students.

The "most effective" program activities listed by the CIS's with their frequencies, are:

1. Career Fair (4).

2. Decision-making and test-taking workshops (4).

3. Field trips (3).

4. CIS and resource speakers in classrooms (3).

5. Group counseling (2).

6. Individual counseling (2).

7. Improving students' study-habits (1).

8. Diagnosing students' interests (1).

9. Films of the Week (1).

10. Picture Interest Exploratory Program (1).

11. Using teaching units with students (1).

12. Workshops for teachers (1).

13. Continuous distribution of materials to teachers, etc. (1).

In listing "least effective" program activities, most CIS's noted such "weaknesses" and "suggestions" as are reported above. Only two specific program activities were listed as "least effective": tests and field trips, with frequencies of 1 and 2, respectively.

The professional-development needs perceived by the CIS's, with their frequencies, are:

1. Opportunity to attend relevant conferences and conventions, both local and national (2).

2. Continued but improved staff-development workshops (2).

3. How to provide career education for severely limited and handicapped children (2).

4. Understanding the changed attitudes of adolescents today (1).

5. Sessions where competent persons present reviews of relevant research (1).

6. Demonstration sessions on the use of A-V aids (1).

7. Training in the use of a guidance information-system (1).

8. How to conduct workshops for teachers, especially on integrating career education into the regular curriculum (1).

These several sets of evaluative responses by Career Information Specialists provide another dimension to this assessment of the Project. The CIS's are in charge of the resource centers, and are the focus of all program activities in the schools. As they see the program, its strengths consist mainly in such characteristics as high levels of intra-staff cooperation and professional expertise, together with effective program activities for the delivery of up-to-date career information and guidance. Its weaknesses lie mainly in inadequate funding, tendencies toward inflexibility and limited public relations. Suggestions for improvement are more varied. The main emphasis is on added personnel for and assistance to the staff and better publicity; but there are also a few proposals for specific

innovations, as the provision of services to the handicapped.

Although the CIS's provide a fairly substantial list of "most effective" program activities, their list of "least effective" activities is quite meager.

The professional-development needs they perceive, for themselves, are not extensive; but they do point to several areas in which 1 or 2 CIS's each feel they could profit by relevant learning experiences.

Overall, of course, it is clear that the Career Information Specialists have a generally high assessment of the program in which they are the key operatives.

Students

Students in grades 4 through 12 in schools where the ESAA Career Education Project operated were asked in the "Student Inventory" (Form CE-2):

A. To indicate the "Career Education Activities" they participated in during 1977-78--"Never", "Once", or "More than once", and
B. To identify their "Career Education Needs", the ones they "feel", and also the ones the school is "helping with."

The activities and needs listed on the inquiry form were previously identified by Project personnel as of key importance in the program.

A. Career Education Activities

The extent of participation in 16 specified career education activities reported by students is shown, by grade and sex, in Appendix Table A. Summaries of the data are presented in Tables 3 and 4. Differences in the numbers of students reporting on the several activities reflect considerable skipping of items by respondents.

TABLE 3

Per Cent of Students in Grades 4 to 12 Who Report Participating Once or More in Specified Career Education Activities, by Sex a

ACTIVITIES (by rank order of frequency)	NUMBER REPORTING		PER CENT PARTICIPATING b Once or More		
	Male	Female	Male	Female	Total
1. Listened to speakers on careers	109	159	89	85	87
2. Watched films on career education	111	160	89	76	81
3. Went on field trips to industry, government, other	112	152	83	73	77
4. Attended Career Education Fair	111	162	71	65	67
5. Took career interest test with class	112	156	59	67	63
6. Used career education kits and games	111	156	57	56	56
7. Shared work experience	109	156	63	48	55
8. Took part in group counseling	111	159	56	52	54
9. Took part in small group sessions with adult leaders	104	158	60	40	53
10. Used the Career Resource Center in my school	112	158	60	45	51
11. Took part in individual counseling	111	161	58	46	51
12. Took career interest test as individual	107	153	45	45	45
13. Discussed test with counselor or Information Specialist	106	155	50	41	44
14. Took decision-making course	112	154	44	43	44
15. Took test-taking course	119	155	45	39	41
16. Took civil service examination	109	158	33	28	30

Probably the most important thing revealed by Table 1 is that majorities of these students report that they participated "once" or "more than once" in 11 of the 16 key activities listed. The proportions are 67 per cent or more in the case of 4 activities--listening to speaker, watching films, going on field trips, and attending the Career Education Fair. Corresponding proportions range from 30 to 45 per cent even for those 5 activities in which fewer than one-half of the students report participating one or more times.

Also evident from Table 3 is a tendency for proportionately more boys than girls to take part in these career education activities. The percentages of once-or-more participation for boys exceed those for girls in the case of all but 2 of the 16 activities-- taking career interest test with class (#5), and taking such test as an individual (#12). This tendency is pronounced (with 12 to 20 percentage points difference) in the case of 5 activities--small group sessions with adults (#9), shared work experience (#7), use of CERC (#10), watching films (#2), and individual counseling (#11).

Comparative proportions of students on different school levels who report participating once or more in the 16 career education activities are shown in Table 4.

TABLE 4

Per Cent of students in Grades 4 to 12 Who Report Participating Once or More in Specified Career Education Activities, by School Level a

ACTIVITIES (in the sequence used in Table 3)	Number Reporting			Per Cent Participating Once or More		
	Sr.High (Gr.10-12)	Jr.High (Gr.7-9)	Elem. (Gr.4-6)	Sr.High	Jr.High	Elem.
1. Listening to speakers on careers	80	108	80	86	83	91
2. Watched films on career education	81	106	84	84	77	83
3. Went on field trips to industry, government, other	81	99	84	68	75	89
4. Attended Career Education Fair	89	100	84	90	46	69
5. Took career interest test with class	77	106	85	82	59	53
6. Used career education kits and games	80	102	85	73	42	58
7. Shared work experience	79	104	82	68	55	40
8. Took part in group counseling	81	105	85	67	32	61
9. Took part in small group sessions with adult leaders	76	118	79	67	41	52
10. Used the Career Resource Center in my school	80	105	85	80	17	66
11. Took part in individual counseling	81	107	84	67	38	52
12. Took career interest test as individual	81	105	74	79	35	22
13. Discussed test with counselor or information specialist	76	104	81	72	25	44
14. Took decision-making course	80	105	81	68	31	36
15. Took test-taking course	79	103	92	56	38	33
16. Took civil service examination	78	107	82	77	17	12

a Derived from Appendix Table A

b Percentages are rounded to the nearest integer.

As would be expected, the data of Table 4 suggest that senior high school students tend to participate in these career education activities proportionately much more than do students on the other two school levels. They also suggest, somewhat surprisingly, that such participation is more prevelant on the elementary level than on the junior high school level. Rough, overall indices of these relationships are afforded by the following medians and ranges of once-or-more participation percentages for students on the three school levels

	Sr. H. S.	Jr. H. S.	Elem. S.
Median per cent...	71.0	40.0	52.5
Range of percentages...	56 to 90	11 to 83	12 to 91

It is apparent that, for all career education activities combined, the extent of student participation is greatest in the senior high schools, and greater in the elementary schools than in the junior high schools.

Inspection of Table 4 shows that once-or-more participation percentages for going on field trips (#3) are larger among the junior high and elementary students than among the senior high students. For the other 15 activities, however, corresponding percentages are larger among the senior high school students than among students on both of the other school levels. Further, such percentages for elementary students exceed those for junior high students in the case of 11 of the 16 activities.

The tendencies and relationships shown in Tables 3 and 4 should be interpreted with caution. In the first place, as noted in Section III, the data are based on small (and probably not representative) numbers of responses--11 class groups from 3 senior high schools, 4 junior high schools, and 4 elementary schools. Second, the elementary schools involved are located in buildings where regional CERC's are located; and their participation in career education activities (e.g., use of the Resource Center, #10) may be more extensive because of this fact than in other elementary or junior high schools. Third, it may be that substantial numbers of the elementary students really did participate once or more in some of the activities that seem appropriate for the secondary level (e.g., #7, #14, #16); but such participation is at least questionable. Fourth, it is probable that students' responses to this inquiry are to some extent "contaminated" by the influence of career education activities conducted under auspices other than ESAA.

Despite these limitations, the data of Tables 3 and 4 clearly indicate a high level of student participation in most of the career education activities that project personnel consider important; and they suggest notable differences in the extent of such participation between boys and girls and among students on different school levels.

B. Career Education Needs.

Presented with a list of 34 "Career Education Needs" developed by the evaluators in cooperation with central staff personnel, students in grades 4 through 12 were asked to respond with check-marks to the questions: "Which needs do YOU feel?", and "Which needs is your school helping with?" For purposes of analysis, their responses were tabulated in two categories: (1) felt needs, and (2) felt needs with which the school was said to be providing help. The numbers of students reporting need-but-no-help or need-with-help for each item listed on the "Student Inventory" are presented, by school level, In Table 5.

The overall picture revealed by Table 5 is summarized by the medians and ranges of percentages, by school level, for felt needs with which the school is providing help.

	Sr. H. S.	Jr. H. S.	Elem. S.
Median per cent	39.3	16.9	22.8
Range of percentages	25.0 to 61.1	5.4 to 53.5	5.4 to 74.1

Apparently, as noted for the extent of student participation in career education activities, the proportion of students reporting school-help with their felt career education needs is greatest in the senior high schools, and greater in the elementary schools than in the junior high schools.

In order to identify which career education needs the school is helping proportionately many and proportionately few students with, the needs listed in Table 5 were ranked according to the percentages of students reporting school help. The five highest-ranking needs and the five lowest-ranking needs--as regards students' perceived receipt of school-help--are listed after Table 5 by school levels. The numbers of the 24 needs there listed correspond to those in Table 5. If several needs have the same school-help rank, all are listed. Cross-marks (x) designate the needs with the five highest school-help percentage ranks and the needs with the five lowest school-help percentage ranks, on each school level. Thus, for example, needs #1, #2 and #3 were in the five highest school-help ranks among junior high school students, but not among students on the other school levels.

Number of Students Reporting No School-Help or School-Help with Specified Career Education Needs, Per Cent School-Help by School Levels

SOME CAREER EDUCATION NEEDS	# REPORTING FELT NEED BUT NO HELP			# REPORTING FELT NEED WITH HELP			% REPORTING FELT NEED WITH SCHOOL HELP		
	Sr.	Jr.	Elem	Sr.	Jr.	El.	Sr.	Jr.	Elem.
1. To develop skill in making wise decisions	26	52	25	12	21	9	46.1	40.4	36.0
2. To relate what I learn to occupations	22	55	36	9	26	8	40.9	47.3	22.2
3. To appreciate the social and economic importance of work	33	43	42	10	23	6	30.3	53.5	14.3
4. To appreciate the importance of work for my personal development	27	61	34	12	11	9	44.4	18.0	26.5
5. To know my own career interests and aptitudes	26	62	41	10	9	8	38.5	14.5	19.5
6. To know about available career choices	20	54	37	8	10	7	40.0	18.5	18.9
7. To test my career interests and aptitudes through work experience	26	74	47	8	4	6	30.8	5.4	12.8
8. To know how my career choice will affect my lifestyle	21	77	37	9	9	3	42.9	11.7	8.1
9. To learn about present and future job trends	25	64	30	8	11	7	32.0	17.2	23.3
10. To know how my personal needs and values should affect my career choice	28	84	33	10	7	5	35.7	8.3	15.1
11. To understand how the free enterprise system works	30	74	56	10	11	3	33.3	14.8	5.4
12. To develop a flexible career plan	26	69	34	10	9	7	38.5	13.0	20.6
13. To know what employers and institutions of higher education expect of a person	19	59	30	11	13	11	57.9	22.0	36.7
14. To prepare for what to do when I leave school	22	61	26	11	12	10	50.0	19.7	38.5
15. To know how to get a job and keep a job	29	69	39	9	8	7	31.0	16.6	17.9
16. To know how to advance in a job	28	60	40	7	7	4	25.0	11.7	10.0
17. To know how to qualify for and succeed in college	15	54	37	9	10	9	60.0	18.6	24.3
18. To make field trips to learn about the world of work	18	48	27	11	14	20	61.1	29.2	74.1
19. To develop positive attitudes toward myself, school and work	24	59	25	12	11	14	50.0	18.6	56.0
20. To know about business and industry in my cummunity	28	63	35	8	9	5	28.6	14.3	14.3
21. To prepare for a group of related jobs, as well as for one in particular	25	67	35	9	10	5	36.0	14.9	14.3
22. To know the educational and training requirements of various jobs	28	64	26	11	8	13	39.3	12.5	50.0
23. For skill in writing resumes and filling out job applications	23	48	27	9	17	20	39.1	35.4	74.1
24. For practice in how to conduct myself in a job interview	20	59	46	10	8	9	50.0	13.6	19.6
25. For skill in gathering job information	26	56	35	9	11	5	34.6	19.6	14.3
26. To develop responsibility for my own life plans	26	68	44	11	8	9	42.3	11.8	20.5
27. To improve my social and communication skills	28	56	25	11	19	15	39.3	33.9	60.0
28. To improve my human relations and public relations skills	25	67	37	8	12	8	32.0	17.9	21.6
29. To develop good attitudes and habits of work	29	52	30	8	9	13	27.5	17.3	43.3
30. To develop skill in problem-solving	24	55	26	10	10	16	41.7	18.2	61.5
31. To develop independent, self-reliant patterns of behavior	23	58	35	9	8	11	39.1	13.8	31.4
32. To know more about school and community resources for career planning	21	55	29	9	8	13	42.9	14.5	44.8
33. To develop beginning skills for entry into a particular job	22	62	32	9	8	11	40.9	12.9	34.4
34. To know about job-training opportunities other than college	21	55	33	10	7	11	47.6	12.7	33.3

CAREER EDUCATION NEEDS (Abbreviated from Table 5)	SCHOOL-HELP PERCENTAGE RANKS					
	Five Highest			Five Lowest		
	Sr.H.	Jr.H.	El.	Sr.H.	Jr.H.	El.
1. Develop decision-making skills	-	x	-	-	-	-
2. Relate learning to occupations	-	x	-	-	-	-
3. Appreciate social importance of work	-	x	-	x	-	x
7. Test career interests through work	-	-	-	x	x	x
8. Know how career choice affects life style	-	-	-	-	x	x
10. Know how personal values should affect career choice	-	-	-	-	x	-
11. Understand free enterprise system	-	-	-	-	-	x
13. Know what employers/institutions expect	x	-	-	-	-	-
14. Prepare for after school	x	-	-	-	-	-
16. Know how to advance on job	-	-	-	x	x	x
17. Know how to succeed in college	x	-	-	-	-	-
18. Take field trips about world of work	x	-	x	-	-	-
19. Develop positive attitudes re self, school, work	x	-	x	-	-	-
20. Know about local business/industry	-	-	-	x	-	x
21. Prepare for related groups of jobs	-	-	-	-	-	x
22. Know requirements of various jobs	-	-	x	-	x	-
23. Skill in writing resumes/applications	-	x	x	-	-	-
24. How to conduct self in job interview	x	-	-	-	-	-
25. Skill in gathering job information	-	-	-	-	-	x
26. Develop responsibility for life plans	-	-	-	-	x	-
27. Improve social/communication skills	-	x	x	-	-	-
29. Develop good work attitudes/habits	-	-	-	x	-	-
30. Develop skill in problem-solving	-	-	x	-	-	-
34. Know about non-college job training	x	-	-	-	-	-

The preceding listing and cross-marks show minimum correlation and maximum variation among school levels. With few exceptions, the needs served for proportionately large or proportionately small numbers of students are different on the senior high school, junior high school and elementary levels. For the most part, these differences seem to reflect variations in educational emphasis that one would expect at the different school levels.

Summary

Several generalizations about the Career Education Project emerge from the preceding analysis of responses to this inquiry by school administrators, teachers and counselors, Career Education Specialists, and students.

All three groups of profesionnal respondents perceived many important strengths in the Project; identified a variety of weaknesses, but few if any of a fundamental nature; offered suggestions that call mainly for more services of the types provided, along with a few innovative proposals; and expressed predominantly high value judgements concerning the educational worth and effectiveness of tne program.

Substantial proportions of the responding teachers and counselors participated in most of the Project's staff-development activities, and used most of the services offered through the Career Education Resource Centers.

Substantial proportions of the student respondents participated in most of the learning activities provided by the Project -- boys more than girls, and senior high school students more than those on other school levels. Moreover, substantial proportions of these students perceive the school as helping with the particular career education needs they feel, with marked variations among school levels in the extent to which this is true for specified felt needs.

Because of serious limitations in the samples on which these generalizations are based, one cannot project these findings to their respective "universes." It is apparent, however, that the Career Education Project is affecting positively very large numbers of professional personnel and students.

Two-W Project

As noted in Section III of this report, available impact data for the Two-W Project include assessments by school administrators, skills-center teachers and tutors, regular teachers, readers of NEWSLETTER; several groups of appraisals of the Alternative and Enrichment Program by teachers, students and community agencies; pretest and posttest scores of teachers in three staff development courses; and pretest-posttest scores of students on achievement tests in reading and mathematics.

School Administrators

Administrators in 15 elementary schools, 4 junior high schools and 1 senior high school participating in the Two-W Project responded to form A-1a of this inquiry. The frequencies with which they re-reported that the several components of the program were operative in their schools during 1977-78 are shown below.

Skills Center: Reading	13
Skills Center: Mathematics	10
Elementary Enrichment	11
New York Times Reading	6
Embassy Adoption	10
Secondary Internship	0
Audubon Naturalist Environment	0
Washington Technical Institute	1

The special problems these administrators encountered in the conduct of the Two-W Project -- all concerning the skills centers -- are here listed with their frequencies; scheduling students (5), late start (2), and (with one frequency each) difficulty in setting up the skills center, late appointment of tutor, change of teacher, scheduling students, inadequate time for skills center, inadequate use of facilities by staff, and not enough follow-up.

The main strengths identified by the administrators, with their frequencies, include:

1. Training teachers to use diagnostic/prescriptive teaching independent of the skills centers (7).
2. Well-planned enrichment program (7).
3. Use of diagnostic/prescriptive tests (4).
4. Reinforcement of school reading program (4).
5. The skills centers (3).
6. Materials in skills centers not available in regular classrooms (3).
7. Valuable opportunities for students and teachers (3).

8. Teachers not required to plan (skills center?) program (2).

9. Follow-up and completion of tasks (2).

10. Small classes for special programs (2).

11. Increased language - arts skills of students (1).

12. Referral service for students not in the skills-center reading program (1).

13. NEWSLETTER (1).

14. "None" (1).

The main weaknesses perceived by administrators include too little time for skills-center instruction (4), limited participation by Two-W target schools (3), and (with one frequency each) late start of skills center, late appointment of teacher, no tutor available, limited interaction between skills-center teachers and regular teachers, inadequate training of new skills-center teachers, low budget, and lack of communication with ESAA office, and inadequate transportation (for trips).

Most of the administrators' suggestions for improvement reflect the weaknesses they listed. Others (with single frequencies) include the following: provide skills-center experiences for gifted children; engaged substitutes to conduct classes once a semester, while regular teachers visit skills centers on a rotating schedule; new instructional materials; awards for participating teachers and students; and increased publicity for the Two-W Project in the community.

The frequencies with which the administrators assigned different value ratings to program components in their schools -- "as an educational experience for students" -- are tabulated below.

Program Components	No basis to judge	No value	Little Value	Sub-stantial value	Great Great Value	Very Great Value
Skills Center: Reading	-	-	1	2	-	8
Skills Center: Mathematics	-	-	1	2	1	6
Elementary Enrichment	-	-	1	2	5	3
N.Y. Times Reading	-	-	-	4	1	3
Embassy Adoption	-	-	-	2	5	2
Secondary Internship	-	-	-	-	-	2
Audubon Naturalist	-	-	-	-	-	-
Washington Tech. Inst.	-	-	-	1	-	-
Aggregate	0	0	3	13	12	24

It is clear that the several components of the Two-W Project are valued highly by the administrators responding to this inquiry, especially the skills centers in reading and mathematics. Overall, 36 (69%) of the 52 ratings noted above are in the categories "Great value" and "Very great value"; and an additional 13 (25%) are in the "Substantial value" category.

Skills Center Teachers and Tutors

The 11 skills-center teachers and tutors responding to this inquiry were asked to assess the program in terms of its main (1) strengths, (2) weaknesses, and (3) special problems, and (4) to offer suggestions for its improvement.

The main strengths listed for the skills-center program, with their frequencies, are:

1. Varied and appropriate instructional materials (5).
2. Individualized instruction (3).
3. Students learn better than in regular classroom (2).
4. Effective organization of the program (2).
5. Small class size (1).
6. Fewer lesson plans to prepare (1).
7. Availability of assistance by tutors (1).
8. Flexible scheduling (1).

The main weaknesses listed by responding teachers and tutors are:

1. Services provided for only a small proportion of students needing them (2).

2. Too much administrative paper-work (2).

3. Classes too large (2).

Several other weaknesses listed with one frequency each relate to poor attendance and disruptive behavior by students, excessive testing and paper-work, inadequate reading material on the secondary level, too little involvement of regular teachers, and inadequate administrative planning and support.

In addition to responding to an open-end question on main weaknesses, skills-center teachers and tutors were asked to check which of a list of specified "conditions and developments" they perceive as "problems that limited the effectiveness" of their work, and to add others not listed on the inquiry form.

The frequencies with which they checked the several items listed and added are shown below.

Problem Conditions and Developments	Frequencies
1. Attendance poor among students.	9
2. Student behavior disruptive.	5
3. Classes too large.	4
4. Not enough instructional materials.	3
5. Instructional materials worn out, need replacement.	3
6. Not enough help from Two-W staff.	3
7. Difficulties with schedule.	2
8. Not enough support from school administration.	2
9. Too many administrative interruptions.	2
10. Instructional materials not appropriate for students.	1
11. Students' failure to follow sequential steps.	1
12. Lack of full-time tutor in each subject area.	1
13. Apathy and lack of cooperation by regular teachers.	1
14. Skills-center teacher position is part-time.	1
15. Attendance by tutor poor.	1
16. Classes too small.	0
17. Classroom space inadequate.	0
18. Storage space inadequate.	0

Responses to this check-list of "problem" conditions and developments correspond closely to and extend the main weaknesses listed in response to the open-ended question.

Most of the suggestions for improvement offered by responding skills-center teachers and tutors echo the program weaknesses and problems previously noted. Added ideas, with their frequencies, include more effective inservice training, including the observation of experienced skills-center teachers (3), identification of target students early in September (1), and closer contact with parents (1).

Asked to indicate professional-development needs they perceive as important for improving their effectiveness in the skills-center program, five teacher-respondents did not list any. Those listed by most of the others identify a fairly wide range of specific staff-development needs they perceive. Included are the following:

1. Visits to other centers (2).
2. "Workshops" (2).
3. Work on manipulatives.
4. Behavior modification techniques (1).
5. Classroom management (1).
6. Use of instructional materials (1).
7. Reinforcement of skills learned by students (1).
8. Developing learning stations for specific targeted skills (1).
9. Vocational information (1).
10. More study of fractions (1).
11. Providing incentives to keep students interested (1).

These several groups of responses by skills-center teachers and tutors appear to be quite perceptive. They recognize the main strengths of the program, chiefly individualized instruction and varied materials. They point to a wide range of specific problems, especially poor attendance and disruptive student behavior. And they also identify a number of areas in which they, themselves, feel the need of further professional development. Overall, they provide positive but "balanced" assessment of the skills-center program for the conduct of which they are immediately responsible.

Regular Teachers

Regular teachers in Two-W schools were asked (on Form 2W-2) whether certain of the Project's component programs were being conducted in their schools, and to evaluate those that were. The inquiry forms were returned by 63 teachers -- 39 in elementary school, 14 in junior high school, and 10 in senior high school. Table 6 shows their responses to several questions about the Skills Center program.

It may be seen from Table 6 that approximately 73 per cent of the respondents knew about the Skills Center program, 72 per cent had visited the center, and 26 per cent had taken their classes to the center one or more times. Three-fourths or more of each of the elementary and senior high school teachers had visited the skills center, but only 54 per cent of the junior

Participation in and Assessment of the Skills-Center Program by Regular Teachers in Two-W Elementary, Junior High and Senior High Schools [a]

Item	Elementary School		Junior Hi School		Senior Hi School		Total #	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1. Skill Center in your school?								
a. Yes	25	65.8	13	92.9	7	70.0	45	72.6
b. No	11	28.9	-	-	2	20.0	13	21.0
c. Don't know	2	5.3	1	7.1	1	10.0	4	6.5
Total	38	100.0	14	100.0	10	100.0	62	100.1
2. If "Yes":								
a. Visit the Skill Center ?								
Yes	21	77.8	7	53.8	6	75.0	34	72.3
No	6	22.2	5	41.7	2	25.0	13	27.7
Total	27	100.0	12	100.0	8	100.0	47	100.0
b. Take Class to Center?								
Yes	7	30.4	3	25.0	1	12.5	11	25.6
No	16	69.6	9	75.0	7	87.5	32	74.4
Total	23	100.0	12	100.0	8	100.0	43	100.0
3. Value of Skills Center program?								
No value	1	2.7	-	-	-	-	1	1.8
Little value	-	-	-	-	-	-	-	-
Substantial value	5	13.9	3	25.0	-	-	8	14.0
Great value	8	22.2	3	25.0	4	44.4	15	26.3
Very great value	18	50.0	5	41.7	2	22.2	25	43.9
No basis to judge	4	11.1	1	8.3	3	33.2	8	14.0
Total	36	99.9	12	100.0	9	99.9	57	100.0

[a] Excluding 3 response forms not identifiable by grade level, mainly reporting no information.

high school teachers had done so. Corresponding proportions of the teachers who had taken their classes to the Center are approximately 30 per cent among elementary teachers, 25 per cent among junior high teachers, and 13 per cent among senior high teachers.

In response to the question: "How valuable to your school is the skills center program?", 8 teachers said they had no basis to judge, and 49 gave value-ratings. Among the latter, between 73 per cent and 100 per cent of the respondents on each school level said the program was of "Very great value" or "Great Value." Only 1 of the 49 respondents rated the program as of "No value", and none rated it as of "Little value."

The regular teachers were also asked whether they knew about and participated in the Alternative/Enrichment program, whether they saw two of the Two-W Project's publications, and also to evaluate these program components. Their responses are shown in Table 7.

It may be seen from Table 7 that only between 25 per cent and 38 per cent of the respondents knew about any one of the six Alternative/Enrichment programs listed, the highest proportion being for the New York Times Reading Program. None of them participated in three of the programs. Between 12 per cent and 18 per cent of them said their classes participated in the other three programs: New York Times Reading Program (17.8%), Elementary Enrichment Package (14.6%), and Embassy Adoption Program (12.5%).

The regular-teacher respondents were asked to assess the Alternative/Enrichment programs in which their classes participated during the year, indicating "how valuable you think each such program was as an educational experience for your students." Table 7 shows their responses, including seven for the three programs for which class participation is not indicated in Section #2 of the Table.

It may be seen from Table 7 that ratings of "Great value" and "Very great value" constitute about 67 per cent of total ratings for the Elementary Enrichment program, 62% for the New York Times Reading program, and 83 per cent for the Embassy Adoption program.

Also shown in Table 7 are responses concerning two publications of the Two-W Project. Approximately 85 per cent of the 61 regular teachers responding had seen NEWSLETTER during the year, and all of the 44 respondents giving assessments rated it as "Useful" or "Very useful." Three-fourths of the 52 respondents had seen 2-W WHAT'S HAPPENING, and all 44 of those giving assessments rated it as "useful" or "Very useful."

The data of Tables 6 and 7 suggest that substantial majorities of the regular teachers in Two-W schools know about the Skills Center program and the Two-W publications, and that about one-fourth of them have taken their classes to the skills centers in their schools. However, only about 38 per cent or fewer of them seem to know about the several Alternative/Enrichment programs,

TABLE 7

Participation in and Assessment of the Alternative/Enrichment Programs and Two Publications by Regular Teachers in Two-W Schools

Item	Number and Per Cent of Responses, by Programs											
	Elementary Enrichment		NY Times Reading		Embassy Adopt.		Secondary Intern		Audubon	Environment	Wash. Tech Orientation	
	Number	Per Cent	Number	Per Cent	Number	PerCent	Number	Per Cent	Number	Per Cent	Number	Per Cent
A. Alternative/Enrichment Programs												
1. Know about the program?												
yes	13	25.0	20	37.7	14	28.6	15	28.8	12	25.5	12	28.6
no	39	75.0	33	62.3	35	71.4	37	72.2	35	74.5	30	71.4
Total	52	100.0	53	100.0	49	100.0	52	100.0	47	100.0	42	100.0
2. Class participate in the program?												
yes	6	14.6	8	17.8	5	12.5						
no	35	85.4	37	82.2	35	87.5	—	—	—	—	—	—
Total	41	100.0	45	100.0	40	100.0						
3. Value of the program?												
no value	-	-	-	-	-	-	-	-	-	-	-	-
little value	-	-	1	12.5	1	16.7	-	-	-	-	1	50.0
substantial value	2	33.3	2	25.6	-	-	-	-	-	-	1	50.0
great value	2	33.3	4	50.0	3	50.0	4	100.0	1	100.0	-	-
very great value	2	33.3	1	12.5	2	33.3	-	-	-	-	-	-
Total	6	100.0	8	100.0	6	100.0	4	100.0	1	100.0	2	100.0

B. Publications	Number and percent of responses NEWSLETTER WHAT'S HAPPENING?			
	Number	Per Cent	Number	Per Cent
1. see the publication				
yes	52	85.2	39	75.0
no	9	14.8	13	25.0
Total	61	100.0	52	100.0
2. Usefullness of publication				
useless	-	-	-	-
useful	33	75.0	25	65.8
very useful	11	25.0	13	34.2
	44	100.0	38	100.0

and far fewer still had classes that participated in these programs. Very substantial majorities of the regular teachers responding to this inquiry gave high value-ratings to all three of these component programs of the Two-W Project--Skills Center, Alternative/Enrichment and publications.

These findings are consistent with the main suggestions offered by the responding regular teachers for improving two of the Two-W programs. Seven of them suggest that the Skills Center program be expanded to include more students, and five suggest that all schools be informed about the Alternative/Enrichment programs.

Readers of NEWSLETTER

The inquiry form distributed to readers of NEWSLETTER (Form 2W-3) was returned by 195 persons -- 56 parents, 106 teachers and 33 others. Their responses to a series of questions about the Two-W Project are reported in Table 8.

It may be seen from Table 8 that approximately 86 per cent of the respondents received NEWSLETTER "regularly"; only about 12 per cent said the copy enclosing the inquiry form was the "first copy" they had read during 1977-78. Almost four-fifths of them (79.3%) had also seen other publications of the Two-W Project, and more than one-half of them (55.7%) had read about the Project in newspapers. As would be expected, parents and teachers in Two-W schools were more familiar with the Project's publications than were other respondents.

More than four-fifths of the respondents (82.4%) were acquainted with the Two-W Congress, a supporting organization in the community; and about one-third of them (33.7%) attended its meetings. Nearly one-third (31.3%) were members of the organization, and 5.3 per cent were officers.

Four-fifths (80.4%) of the parents who returned the inquiry form (and much smaller proportions of the teachers and other respondents) had children attending Two-W schools. Seven per cent of them had children in the Skills Center Program, but only 22 per cent of those reported that their children "like the program."

Table 8 also shows that between 16 and 30 of the parents (and smaller numbers of teachers and other respondents) had children participating in 4 of the 6 Alternative/Enrichment programs of the Two-W Project -- about 39 per cent in the Elementary Enrichment Program, 30 per cent in the New York Times Reading Program, 32 per cent in the Embassy Adoption Program, and 13 per cent in the Audubon Naturalist Environment Programs. About 79 per cent of the children were said to "like" the programs in which they participated.

Respondents to the NEWSLETTER inquiry were asked: "In your opinion, are the supplementary services offered by the Two-W Project important for the education of your children?" About 91 per cent of the parents, 84 per cent of the teachers, and 89 per cent of the others answered "Yes."

TABLE 8

Assessments of the Two-W Project by Readers of NEWSLETTER: Parents, Teachers, Others

	Parents		Teachers		Others[a]		Per Cent "Yes"			
	No. of Responses	Number "Yes"	No. of Responses	Number "Yes"	No. of Responses	Number "Yes"	Parents	Teachers	Others	Total
1. First copy of NEWSLETTER read during year?	56	8	105	33	33	8	14.3	7.6	24.2	12.4
2. Receive NEWSLETTER regularly?	54	46	106	94	33	25	85.2	88.7	75.8	85.5
3. Seen other Two-W publications?	55	45	100	81	33	23	81.8	81.0	69.7	79.3
4. Read about Two-W in newspapers?	56	32	103	60	33	15	57.1	58.3	45.5	55.7
5. Concerning Two-W Congress:										
a. Know what it is?	55	49	105	87	33	23	89.1	82.9	69.7	82.4
b. Member?	51	19	96	31	32	6	37.3	32.3	18.8	31.3
c. Officer?	46	3	95	5	28	1	6.5	5.3	3.8	5.3
d. Attend meetings?	56	22	102	31	32	11	39.3	30.4	34.4	33.7
6. Child attending Two-School?	56	45	98	4	26	4	80.4	4.1	15.4	29.4
7. Child in Skills-Center Program?	43	3	25	2	9	-	7.0	8.0	0	6.5
a. He/she likes program.	9	2	3	-	2	-	22.2	0	0	14.3
8. Child in following Enrichment programs?										
a. Elementary Enrichment?	30	11	11	6	5	1	36.7	54.5	20.0	39.1
b. New York Times Reading?	21	6	12	5	3	-	28.6	41.7	-	30.6
c. Embassy Adoption?	21	5	12	5	4	2	23.8	41.7	50.0	32.4
d. Secondary Internship?	17	-	7	-	3	-	0	0	0	0
e. Audubon Enrichment?	20	3	8	1	3	1	15.0	12.5	0	12.9
f. Washington Tech. Orientation?	16	-	6	-	3	-	0	0	0	0
9. Child likes above program(s)?	23	19	7	5	3	2	82.6	7.14	66.7	78.8
10. Two-W supplementary services important for children's education:	53	48	96	81	26	23	90.6	84.4	88.5	86.9

[a]Including 7 responses not identified by role category.

The data of Table 8 suggest that substantial proportions of the parents and teachers in Two-W schools, together with "others", are informed about and have children participating in the Project's component programs. Moreover, their assessment of the program is strongly positive.

Other Assessments of the Alternative/Enrichment Program

The Two-W Project assembled several sets of evaluative data as part of its on-going operations, largely through inquiry forms returned by participating teachers, students and cooperating agencies. These forms were made available to the evaluators.

Included in these materials are extensive assessment data concerning the Alternative/Enrichment Program. Selected findings from the evaluators' analyses of these data are summarized here for the Elementary Enrichment, New York Times Reading, Embassy Adoption, and Secondary Internship programs.

A. Concerning the Elementary Enrichment Program Program:

Forty-two out of 117 participating teachers returned inquiry forms concerning field trips taken by their classes.

1. Asked whether the tour was (a) well-planned, (b) interesting to students, and (c) successfully supplementary to classroom work, 35 or 36 of the 42 respondents answered "to a great extent" for each of the three questions.

2. These respondents' "overall evaluation" of the field trips is indicated by the following ratings and frequencies:

Excellent	29
Very good	11
Fair	2
Poor	0

B. Concerning the New York Times Mobile Reading Program Programs:

Nine out of 16 participating teachers returned inquiry forms about their experiences with the New York Times Reading Program.

1. The numbers of respondents indicating the degrees to which specified program objectives were achieved by their students are summarized below.

Objectives	Degree Achieved: Great Extent	Some Extent	Not At all	No Response
a. To relate the news material to the academic content of the curriculum	2	7	-	-
b. To relate the news material to the student's experiences in the real world	4	4	-	1
c. To provide the student with an educational tool, which he can use now and in his adult life	6	4	-	1
d. To reinforce word recognition and vocabulary growth	5	3	-	1
e. To reinforce contextual growth (i.e., finding main and sub-ordinate ideas, identifying writing styles, etc.)	6	2	-	1
f. To develop cognitive skills required to research activities and analysis of statistical data (i.e., the use of indexes, weather map, stock market, etc.)	3	5	1	-

2. These respondents' "overall evaluation" of the program is indicated by the following ratings and frequencies:

Excellent	3
Very good	3
Fair	1
Poor	0
No response	2

3. Eighty-three out of 160 students responded to an inquiry form asking their assessments of the New York Times Reading Program. The frequencies of their responses to five questions are noted below.

   a. Did you enjoy receiving the New York Times?
      Yes-67; No-15; No response-1.

   b. How often did you read the paper?
      Daily-21; Sometimes-58; Not at all-3: No response-1.

   c. Did reading the paper encourage you to develop new interests?
      Yes-38; No-44: No response-1.

   d. Did you learn how to use indexes and find specific information in the paper?
      Yes-75; No-5; Already knew-3.

e. Please give your opinion of the New York Times.

Excellent	11
Very good	40
Fair	25
Poor	3
No response	4

4. Students in the New York Times Reading program were administered a 20-item test before and after the program. The medians and ranges of pretest and posttest scores for 116 students for whom paired numerical scores are available are:

	Pretest	Posttest
Median	13	22
Range	0 to 20	5 to 20

C. Concerning the Embassy Adoption Program:

Eleven out of 22 teachers responded to a series of questions about their classes' experiences in the Embassy Adoption Program. Most of the items were procedural and descriptive. One question implies evaluation: "Would you be interested in participating in this program again next year? All 11 respondents answered "yes."

D. Concerning the Secondary Internship Program:

1. Fourteen out of 30 students in the Secondary Internship Program responded to a wide range of questions about their experiences. The frequencies of their responses to 10 more-or-less evaluative questions are shown below.

	Yes	No	No Response or Ambiguous
a. Were you assigned a variety of tasks?	11	3	-
b. Were the tasks challenging?	6	7	-
c. Did your sponsor give freely of his time and assistance?	14	-	-
d. Do you think you would like to pursue the field of your internship?	7	6	-
e. Would you recommend the Two-W Internship Program to other students?	14	-	-
f. Did you enjoy your internship experience?	13	-	1
g. Did you gain any new skills?	11	2	1
h. Do you feel that the Internship Program is worthwhile?	14	-	-
i. Would you recommend that other interns in your career field choose your same placement?	10	3	1
j. Would you recommend that other interns in your career field choose your same sponsor?	10	2	2

2. Twenty-four out of 26 agencies providing placements for interns returned assessment forms for the students with whom they worked. Following a series of questions about the intern's work habits, ability, attitudes, attendance, grooming, etc., (to which responses were mostly positive), the question was asked: "Putting together the factors appraised above, what is your general rating of the student?" The frequencies of the agencies' general ratings are:

Excellent	11
Very good	9
Good	1
Satisfactory	1
Not satisfactory	0
No response	2

The overall picture that emerges from these bits of evaluative data is that of an effectively operating and educationally valuable Alternative/Enrichment Program. Teacher and agency assessments are overwhelmingly positive. Student assessments and performance are more varied, although mainly positive. The fact that the Two-W Project assembles such evaluative data as are here reported -- as an on-going process -- reflects superior practice in program development.

Teachers in Staff-Development Courses

As previously noted in Section III, the Two-W Project offered three credit-yielding, inservice courses for teachers -- A Manipulative Approach to Teaching Mathematics, Diagnostic/Prescriptive Teaching of Reading, and Classroom Management for Secondary Teachers. On the basis of objectives defined for each course, the instructors and the Two-W central staff prepared an examination that was administered to the students at the beginning and at the end of the course. Test sheets and tabulated results were made available to the evaluators.

The number of students with paired pretest-posttest scores for each course examination, together with corresponding median scores and ranges, are shown below.

	Mathematics Course	Reading Course	Management Course
Number of paired scores	8	7	24
Median score:			
Pretest	57.5	62.0	30
Posttest	80.0	61.0	83
Range of scores:			
Pretest	45-90	36-100	9-66
Posttest	65-90	38-100	30-97

The median posttest scores of students are substantially larger than their median pretest scores in two of the courses -- A Manipulative Approach to Teaching Mathematics and Classroom Management for Secondary Teachers; and the range of posttest scores is considerably narrower than the range of pretest scores for the Mathematics Course but not for the Management Course. In the case of the course on Diagnostic/Prescriptive Teaching of Reading, however, the pretest and posttest median scores and ranges are approximately the same.

Students' Academic Achievement

Paired pretest-posttest scores in reading are available for 1,941 students in grades 4, 5, 6, 8 and 9 in 15 Two-W Schools, and for 1,522 students in Mathematics in the same grades and schools. All of these students were "identified" early in the year as achieving one or more years below grade level. Their scores in grades 4, 5 and 8 are raw scores on the Stanford Achievement Test, and their scores in grades 6 and 9 are grade equivalents on the Comprehensive Test of Basic skills.

Some of the "identified" students, here designated as the "Basic Approach" group, were assigned for individualized instruction each day in the Two-W skills centers; and a larger number of such students were not serviced at all, other than in their regular classrooms. In two elementary schools, using the "Total School Approach", teachers took their whole classes to the skills center daily, "identified" students along with others whose achievement levels were not one year or more below grade level. In this analysis, only the "identified" students in the "Total School Approach" groups are used.

Comparisons are made of students' pretest-posttest achievement in the three "treatment" groups. The numbers of students involved are shown below, by groups and by grades.

	READING			MATHEMATICS		
Grade	Basic Approach	Total Approach	Not Serviced	Basic Approach	Total Approach	Not Serviced
4	59	17	178	16	10	66
5	79	48	129	74	48	94
6	69	17	199	55	17	115
8	94	-	330	109	-	283
9	92	-	630	158	-	477
Total	393	82	1,466	412	75	1,035

Information is available for the "Total Number of Days Serviced" for 937 of the "identified" students in the "Basic" and "Total" treatment groups -- 473 in reading and 464 in mathematics. Their difference scores (posttest minus pretest) are correlated with number of days serviced.

The analyses are presented first for reading, and then for mathematics. In all of the comparisons, it is important to bear in mind that data for grades 4, 5 and 8 are based on raw scores on S.A.T., and data for grades 6 and 9 are based on grade equivalents on C.T.B.S. Calculations were made by computer.

Reading: Table 9 shows students' pretest, posttest and difference scores in reading, along with their respective standard deviations, the statistical significance of the difference scores, and the correlation between pretest and posttest scores, by treatment groups and by grades. Insepction of the table reveals that students' mean posttest scores are substantially higher than their mean pretest scores in all three treatment groups and in all five grades. Moreover, all of these differences are statistically significant, their probability measures ranging from .000 to .021.

Somewhat contrary to expectations, the variability among these students increased between pretest and posttest. Standard deviations are substantially larger for posttest scores in the case of each treatment group and each grade.

This increased variability is probably related to the surprisingly low correlation between pretest scores and posttest scores. Only one of the coefficients in Table 9 exceeds .40; and most of them are smaller than .30, ranging down to -.11.

Table 9 also shows that, although mean pretest scores in reading are roughly comparable for the three treatment groups in the several grades, the mean posttest scores for the "Basic" group are substantially smaller than those of the "Total" group in grades 4, 5 and 6; and they are also substantially smaller than those of the "No-Service" group in all five grades. These relationships are shown more clearly in Table 10, where the entry-level (pretest) scores and the difference scores (posttest minus pretest) of the "Total" and "Not Serviced" groups are expressed as percentages of comparable scores of the "Basic" group.

Table 9

Mean Differences, Standard Deviations and Correlations between Two-W Students' Pretest and Posttest Scores in Reading, by Three "Treatment" Groups and by Grades (a

"Treatment" Group and Grade	Number	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Difference "Gain"	Difference S.D.	T Value	Probability	Pre-Post Correlation Coefficient (b
A. Students Serviced by "Basic" Approach										
Grade 4	59	17.28	4.0	19.73	6.5	2.44	7.9	2.36	.021	-.091
Grade 5	79	20.35	5.4	25.11	8.2	4.76	7.9	5.33	.000	.376
Grade 6	69	2.96	.76	3.77	1.36	.81	1.43	4.78	.000	.197
Grade 8	94	15.94	6.9	21.58	8.3	5.65	9.7	5.63	.000	.182
Grade 9	92	4.43	1.54	5.13	2.10	.70	2.10	3.20	.002	.370
	393									
B. Students Serviced by "Total School" Approach										
Grade 4	17	17.23	4.1	29.00	10.7	11.76	11.9	4.08	.001	-.114
Grade 5	48	17.31	7.1	22.71	8.0	5.40	9.2	4.08	.000	.270
Grade 6	17	3.12	1.03	4.97	2.19	1.84	2.25	3.31	.004	.134
	82									
C. Students Not Serviced										
Grade 4	178	16.35	4.6	23.14	7.7	6.79	8.2	11.08	.000	.181
Grade 5	129	22.31	5.2	30.49	9.2	8.19	8.6	10.82	.000	.396
Grade 6	199	3.32	.92	4.72	1.89	1.39	1.72	11.47	.000	.424
Grade 8	330	20.36	7.5	29.12	11.6	8.76	11.5	13.83	.000	.342
Grade 9	630	4.82	2.56	6.73	5.90	1.91	5.82	8.23	.000	.247
	1,466									

(a In grades 4, 5 and 8, measures are based on SAT raw scores.
In grades 6 and 9, measures are based on CTBS grade equivalents

(b Product Moment Correlation Coefficients -- Pretest: Posttest

TABLE 10

Per Cent Mean Pretest and Mean Difference Scores in Reading of Two-W Students in the "Total" and "Not Serviced" Groups Are of Comparable Scores of Students in the "Basic" Group, by Grades[a]

	Per Cent of "Basic" Mean Pretest Score			Per Cent of "Basic" Mean Difference Score		
Grade	Basic	Total	Not Serviced	Basic	Total	Not Serviced
Grade 4:	100.0	99.7	94.6	100.0	481.9	278.3
Grade 5:	100.0	85.1	109.6	100.0	113.4	172.0
Grade 6:	100.0	105.4	112.2	100.0	227.2	171.6
Grade 8:	100.0	-	127.7	100.0	-	155.0
Grade 9:	100.0	-	108.8	100.0	-	272.8

[a]Derived from Table 9.

It may be seen from Table 10 that the mean pretest scores of the "Total" group are lower than those of the "Basic" group in Grades 4 and 5, and 5.4 per cent higher in Grade 6. However, the mean difference scores of the "Total" group are higher in all three grades--almost five times as high in Grade 4, and more than twice as high in Grade 6.

The mean pretest score of the "Not Serviced" group is slightly lower than that of the "Basic" group in Grade 4, but such scores are higher in the other four grades--ranging from 8.8 per cent higher in Grade 9 to 27.7 per cent higher in Grade 8. However, the mean difference scores of the "Not Serviced" group are substantially higher than those for the "Basic" group in all five grades--almost three times as high in Grades 4 and 9, and more than one-half higher in the other three grades.

The data of Table 10 make it clear that, overall, students in the "Total" and "Not Serviced" groups increased their reading achievement between pretest and posttest substantially more than students in the "Basic" group.

Table 11 shows the frequency distribution of students' difference scores in reading, by treatment groups and by grades. For example, posttest scores were larger than pretest scores by between 31 to 35 points for 1 student in the "Basic" group and 1 student in the "Not Serviced" ("None") group, and by between 41 to 45 for 1 student in the "Total" group. The comparable percentage distribution is shown in Table 12.

For purpose of these frequency and percentage distributions, the grade-equivalent scores of students in grades 6 and 9 have been multiplied by the factor of 10 with the decimal point omitted, in order to accomodate them on the 5-point scale used with raw scores in grades 4, 5 and 8. Thus, the distributions for grades 6 and 9 are directly comparable; but they are not comparable to those for the other three grades. Although arbitrary, this procedure facilitates inspection of the distribution of scores from the lowest to the highest intervals in each grade.

Inspection of Table 11 reveals a wide range of students' difference scores. In the case of grades 4 and 5, nine students "lost" between 11 to 15 points; and one student "gained" between 41 and 45 points. In the case of grades 6, 8 and 9, forty-nine students "lost" 21 or more points; whereas seventy-one students "gained" 51 or more points.

By counting the frequencies of Table 11, ignoring grade levels, one can determine the numbers of students whose pretest-to-posttest scores increased or decreased by any number of points. Such a count shows the numbers (and percentages) of students in the two treatment groups combined and in the no-treatment group whose scores increased by 1 or more points, by 11 or more points, or remained the same or decreased.

The following tabulations show these relationships. In interpreting them, it should be recalled that the grade-equivalent "scores" for grades 6 and 9 in Table 11 are multiples of 10, with the decimal point omitted, and are not directly comparable to the raw score used for grades 4, 5 and 8.

TABLE 11

Frequency Distribution of Two-W Students' Difference Scores in Reading, by Three "Treatment" Groups and by Grades[a]

Class Interval	Grade 4			Grade 5			Grade 6			Grade 8[b]			Grade 9[b]		
	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None
51 and over							-	1	7	-	-	2	3	-	58
46 to 50							-	1	5	-	-	1	0	-	21
41 to 45	-	1	-				-	1	1	-	-	4	3	-	30
36 to 40	-	-	-				1	-	6	-	-	3	3	-	28
31 to 35	1	-	1	-	1	3	4	1	14	-	-	7	1	-	32
26 to 30	-	1	1	-	-	2	5	3	12	3	-	5	4	-	41
21 to 25	-	1	9	1	2	4	5	1	17	4	-	18	6	-	43
16 to 20	3	2	17	7	3	12	7	-	29	6	-	31	6	-	43
11 to 15	3	4	27	11	8	26	11	2	22	18	-	57	14	-	63
6 to 10	10	3	37	17	11	29	4	1	18	16	-	64	6	-	51
1 to 5	17	1	47	19	6	30	10	3	19	15	-	69	9	-	48
0	3	1	9	3	4	6	2	-	5	4	-	7	5	-	17
-1 to 5	15	2	22	14	8	13	5	2	18	16	-	37	6	-	34
-6 to 10	6	1	5	4	3	4	7	-	17	7	-	17	9	-	39
-11 to 15	1	-	3	3	2	-	6	-	6	5	-	6	6	-	22
-16 to 20	-	-	-	-	-	-	2	-	-	-	-	1	5	-	22
21 and below	-	-	-	-	-	-	-	1	3	-	-	1	6	-	38
Total	59	17	178	79	48	129	69	17	199	94	-	330	92	-	630

(a Difference Score ("Gain" or "Loss") = (Posttest Score) - (Pretest Score)

(b For purposes of this distribution, grade equivalent scores for grades 6 and 9 are multiplied by 10 with the decimal point omitted.

Percentage Distribution of Two-W Students' Difference Scores in Reading, by Three "Treatment" Groups and by Grades [a]

Class Interval	Grade 4			Grade 5			Grade 6			Grade 7			Grade 9		
	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None
51 and over							-	5.9	3.5	-	-	.6	3.3	-	9.1
46 to 50							-	5.9	2.5	-	-	.3	-	-	3.3
41 to 45	-	5.9	-				-	5.9	.5	-	-	1.2	3.3	-	4.8
36 to 40	-	-	-				1.4	-	3.0	-	-	.9	3.3	-	4.4
31 to 35	1.7	-	.6	-	2.1	2.3	5.8	5.9	7.0	-	-	2.1	1.1	-	5.1
26 to 30	-	5.9	.6	-	-	1.6	7.2	17.6	6.0	3.2	-	1.5	4.3	-	6.5
21 to 25	-	5.9	5.1	1.3	4.2	3.1	7.2	5.9	8.5	4.3	-	5.5	6.5	-	6.8
16 to 20	5.1	11.8	9.6	8.9	6.3	9.3	10.1	-	14.6	6.4	-	9.4	6.5	-	6.8
11 to 15	5.1	23.5	15.2	13.9	16.7	20.2	15.9	11.8	11.1	19.1	-	17.3	15.2	-	10.0
6 to 10	16.9	17.6	20.8	21.5	22.9	22.5	5.8	5.9	9.0	17.0	-	19.4	6.5	-	8.1
1 to 5	28.8	5.9	26.4	24.1	12.5	23.3	14.5	17.6	9.5	16.0	-	20.9	9.8	-	7.6
0	5.1	5.9	5.1	3.8	8.3	4.7	2.9	-	2.5	4.3	-	2.1	5.4	-	2.7
-1 to 5	25.4	11.8	12.4	17.7	16.7	10.1	7.2	11.8	9.0	17.0	-	11.2	6.5	-	5.4
-6 to 10	10.2	5.9	2.8	5.1	6.3	3.1	10.1	-	8.5	7.4	-	5.2	9.8	-	6.2
-11 to 15	1.7	-	1.7	3.8	4.2	-	8.7	-	3.0	5.3	-	1.8	6.5	-	3.5
-16 to 20	-	-	-	-	-	-	2.9	-	-	-	-	.3	5.4	-	3.5
-21 and over	-	-	-	-	-	-	-	5.9	1.5	-	-	.3	6.5	-	6.0

(a Derived from Table 11)

	Basic + Total Group	No Treatment Group
Score increased by 1 or more points	311 (65%)	1,114 (76%)
Score increased by 11 or more points	163 (34%)	702 (48%)
Score remained the same or decreased	164 (35%)	352 (24%)

It may be seen that approximately two-thirds of the students in the two serviced groups increased their scores by 1 or more points, as compared with about three-fourths of the non-serviced students. Approximately one-third of the students in the two serviced groups increased their scores by 11 or more points, as compared with nearly one-half of the non-serviced student. Approximately one-third of the students in the two serviced groups had either the same pretest and posttest scores or lower posttest scores, as compared with about one-fourth of the non-serviced students. Thus, although reading scores increased for most of the student in both the serviced and non-serviced groups (Table 9), it is apparent from these comparisons that the incidence of such increases was higher among the non-serviced students than among the serviced students.

Table 13 shows these and other relationships by grades for the several treatment groups. The tendency for difference ("gain") scores to concentrate in the 1-to-20 point range is there evident. Notable also is the fact that, for all groups and grades combined, 235 (12%) of the 1,941 students increased their posttest scores by 31 or more points over their pretest scores. On the other hand, 516 (27%) of these students had posttest scores equal to or lower than their pretest scores.

Information on the number of days serviced is available for 473 students in the "Basic" and "Total" groups for whom both pretest and posttest scores in reading are also available. Table 14 shows, by grades, the degrees of correlation between

Number and Per Cent of Two-W Students Whose Pretest - Posttest Difference Scores in Reading Increased by Specified Numbers of Points, or Remained the Same or Decreased, by Three "Treatment" Groups and by Grades (a

Grade "Treatment" Group, and Number	No Increase + Decrease		Increase: 1 to 10 Points		Increase: 11 to 20 Points		Increase: 21 to 30 Points		Increase: 31 or more Points		Increase: 21 or more Points	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Grade 4:												
Basic (N= 59)	25	42	27	46	6	10	-	-	1	.2	1	.2
Total (N= 17)	4	24	4	24	6	35	2	12	1	6	3	18
None (N=178)	39	22	84	47	44	25	10	6	1	6	11	6
Grade 5:												
Basic (N= 79)	24	30	36	46	18	23	1	1	-	-	-	1
Total (N= 48)	17	35	17	35	11	23	2	4	1	2	3	6
None (N=129)	23	19	59	46	38	29	6	5	3	2	9	7
Grade 6:												
Basic (N= 69)	22	32	14	20	18	26	10	14	5	7	15	22
Total (N= 17)	3	18	4	24	2	12	4	24	4	24	8	47
None (N=199)	49	25	37	19	51	26	29	15	33	17	62	31
Grade 8:												
Basic (N= 94)	32	34	31	33	24	26	7	7	-	-	7	7
Total -	-	-	-	-	-	-	-	-	-	-	-	-
None (N=330)	69	21	133	40	88	27	23	7	7	5	30	9
Grade 9:												
Basic (N= 92)	37	40	15	16	20	22	10	11	10	11	20	22
Total -	-	-	-	-	-	-	-	-	-	-	-	-
None (N= 630)	172	27	99	16	106	17	84	13	169	27	253	27

(a Derived from Table 11

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TABLE 14

Correlation Between Two-W Students' Pretest, Posttest and Difference Scores In Reading and Number of Days Serviced by Skills Center

		Pretest Scores		Posttest Scores		Difference Scores	
Grade	Number	Correlation Coefficient(a	Level of Significance	Correlation Coefficient(a	Level of Significance	Correlation Coefficient(a	Level of Significance
4	76	-.096	.204	-.085	.232	-.035	.381
5	126	.153 b	.044	.196 b	.014	.076	.198
6	85	.048	.330	-.095	.193	-.116	.145
8	94	-.135	.097	-.146	.081	-.028	.392
9	92	.144	.085	-.022	.416	-.128	.111

(a Product Moment Coefficient of Correlation
(b Significant at the .05 level.

the number of days these students were serviced and their pretest, posttest and difference scores.

The 15 correlation coefficients shown in Table 14 are all very low, none higher than .196. Further, 10 of the 15 coefficients are negative. Still further, only 2 of the 15 coefficients are statistically significant at the .05 level. Obviously, there is very little relationship between the number of days these students were serviced in the Two-W skills centers and their performance on the standardized tests of reading reflected in this analysis. Moreover, even the slight relationships shown are mostly negative.

This finding is consistent with the prior finding that pretest-to-posttest "gains" in reading achievement were more prevalent among students not serviced at all by the skills centers than among students serviced by the "Basic" and "Total" approaches combined. It is a surprising finding that begs for an explanation.

Just what accounts for this finding is not here known, but the explanation may lie in one or more of the following hypotheses:

First, perhaps the personnel of the skills centers in reading are not efficient at individualized instruction, or not motivated to work effectively with the students assigned to them. Having interviewed many of the skills center teachers and observed their programs in operation, the evaluators are inclined to reject this hypotheses.

Second, perhaps the time between pretest and posttest was too short for the "Basic" skills center approach to demonstrate its potential. This, too, is an unlikely hypostheses. There was a span of 7 months between tests in grades 4, 5, 6 and 9, and a span of 13 months in grade 8 (p.18).

Third, perhaps the standardized tests used in the Two-W skills-center program are not appropriate for the population and program involved. There is considerable reason to suspect that this may be true, especially since the program focuses on isolated skills with individual students, not on a broadly developmental approach to teaching reading.

Fourth, it is likely that the performance of non-serviced students is partially due to what has been termed the "diffusion effect". The interrelations among teachers in a given school probably result in the adoption by regular teachers of techniques emphasized in the skills centers. Indeed, as noted in Table 6, almost three-fourths of the regular teachers responding to this inquiry had visited the skills centers, and one-fourth of them had taken their classes to these centers.

Fifth, perhaps low-achieving students in reading are not adequately motivated to learn in such skills-center settings as are provided by the Two-W Project. It may be that taking them out of their regular classroom groups carries with it a stigma that is counter-productive to effective learning. This hypotheses finds some support in the finding (p.46) that the skills center teachers responding to the inquiry ranked poor attendance and disruptive student behavior as most prominent among "problems that limited the effectiveness" of their work. It is further supported by the finding (Table 9) that difference scores in Grades 4, 5 and 6 were larger for the "Total" group than for the "Basic" group. Students in the "Total School Approach" used the skills centers, but they did so with their regular classroom groups, including both low-achieving and higher-achieving classmates.

Sixth, perhaps individualized instruction in reading is generally less effective with low-achieving students than regular classroom instruction. It may be that keeping such students with their classmates not only makes for better attitudes toward learning, but also provides more and varied opportunities for learning from the interchanges between teacher and students and among students. This hypothesis, of course, is at odds with the profession's general acclaim for individualized instruction; but the work of some scholars suggests that it may be valid*.

In any case, careful examination of the skills-center program in reading is indicated. It is important to understand why students in that carefully organized and apparently efficient program did not experience greater improvement in reading than comparable students whose only "treatment" was regular classroom instructions.

It is important also that speculation about these treatment-group comparisons not overshadow the fact that most of the Two-W students did gain in reading achievement, some of them very substantially.

MATHEMATICS: The analysis of Two-W Students' achievement in mathematics follows the pattern used in the case of achievement in reading. Table 15 shows their mean pretest, posttest and difference scores, together with related measures, by treatment groups and grades.

* See, for example: (1) Jere E. Brophey and Carolyn M. Everston, Process-Product Correlations in the Texas Teacher - Effectivness Study: Final Report University of Texas at Austin; 1974. (ERIC Document ED-091 394); and (2) F.J. McDonald and Patricia Elias, The Effects of Teaching Preformance on Pupil Learning, Beginning Teacher Evaluation Study: Phase II, 1973-74. Final Report, Vol.I, Princeton, New Jersey: Educational Testing Service, 1976.

TABLE 15

Mean Differences, Standard Deviations, and Correlations between Two-W Students' Pretest and Posttest Scores in Mathematics, by Three "Treatment" Groups ans by Grades[a]

"Treatment" Group and Grade	Number	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Difference Mean	Difference S.D.	t value	Probability	Pre-Post Correlation Coefficient[b]
A. Students Serviced by "Basic" Approach										
Grade 4	16	6.31	1.4	12.38	5.9	6.06	6.4	3.76	.002	- .297
Grade 5	74	10.61	2.5	15.50	5.0	4.89	5.0	8.45	.000	.249
Grade 6	55	3.68	.76	4.69	1.49	1.01	1.35	5.51	.000	.428
Grade 8	109	12.63	4.1	16.41	5.8	3.78	6.3	6.30	.000	.240
Grade 9	158	4.98	1.46	5.80	2.33	.82	2.16	4.74	.000	.426
	412									
B. Students Serviced by "Total School" Approach										
Grade 4	10	5.60	2.2	17.20	9.9	11.60	9.6	3.84	.004	.243
Grade 5	48	10.27	2.6	18.02	7.6	7.75	7.1	7.56	.000	.344
Grade 6	17	3.74	.76	4.82	1.88	1.08	1.68	2.66	.017	.448
	75									
C. Students Not Serviced										
Grade 4	66	6.15	2.1	13.74	6.0	7.59	6.3	9.79	.000	.045
Grade 5	94	11.33	2.9	17.64	5.9	6.31	5.9	10.27	.000	.238
Grade 6	115	3.95	.84	5.26	1.34	1.31	1.37	10.27	.000	.272
Grade 8	283	13.87	4.7	18.68	6.3	4.82	6.7	12.06	.000	.275
Grade 9	477	5.47	1.46	6.26	2.49	.79	2.33	7.43	.000	.395
	1,035									

[a]In grades 4, 5 and 8, measures are based on SAT raw scores.
In grades 6 and 9, measures are based on CTBS grade equivalents.

[b]Product Moment Correlation Coefficients -- Pretest : Posttest

Evident from Table 15 is the fact that most of the 1,522 students improved in mathematics achievement between pretest and posttest. Difference scores are substantial for all grades in each of the three treatment groups, and all of them are highly significant statistically.

Variability in mathematics achievement, as reflected by standard deviations, increased between pretest and posttest for all grades in each group. Correspondingly, correlations between pretest and posttest scores are low. None of the 15 coefficients shown in Table 15 is higher than .448, and 8 of them range downward from .275.

Comparisons among treatment groups are facilitated by the data of derived Table 16.

TABLE 16

Per Cent Mean Pretest Scores and Mean Difference Scores in Mathematics of Two-W Students in the "Total" and "Not Serviced" Groups Are of Comparable Scores of Students in the "Basic" Group, by Grades[a]

	Per Cent of "Basic" Mean Pretest Score			Per Cent of "Basic" Mean Difference Score		
Grade	Basic	Total	Not Serviced	Basic	Total	Not Serviced
Grade 4	100.0	88.7	97.5	100.0	191.4	125.2
Grade 5	100.0	96.8	106.8	100.0	158.5	129.0
Grade 6	100.0	94.3	107.3	100.0	106.9	129.7
Grade 8	100.0	-	109.8	100.0	-	127.5
Grade 9	100.0	-	109.8	100.0	-	96.3

[a]Derived from Table 15.

It may be seen from Table 16 that pretest scores for the "Total" and "Not Serviced" groups are roughly comparable to those of the "Basic" group, the differences ranging from about 11 per cent smaller to 10 per cent larger. However, with two exceptions ("Total" grade 6 and "Not Serviced" grade 9), the difference scores of the "Total" and "Not Serviced" groups are substantially larger than those of the "Basic" group, the differences ranging from 25 per cent larger to 91 per cent larger.

Thus, as was found in the case of reading achievement, the Two-W students in the "Total" and "Not Serviced" groups tended to improve more between pretest and posttest than did students in the "Basic" group. It should be noted, however, that the differences are much smaller than those in reading achievement.

Table 17 shows the frequency distribution of difference scores in mathematics by specified increments of "gain" or "loss", by treatment groups and by grades; and the corresponding percentage distribution is shown in Table 18.

Inspection of Tables 17 and 18 reveals wide ranges of (posttest minus pretest) difference scores for the students in all three treatment groups and in all grades. The ranges are especially wide in grades 6 and 9, where data are based on CTBS grade-equivalent scores.

TABLE 17

Frequency Distribution of Two-W Students' Difference Scores in Mathematics, by Three "Treatment" Groups and by Grades[a]

Class Interval	Grade 4			Grade 5			Grade 6			Grade 8[b]			Grade 9[b]		
	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None
51 and over							1	-	2				7	-	24
46 to 50							-	1	1				2	-	4
41 to 45							-	-	2				6	-	8
36 to 40	-	-	1				1	-	5				7	-	20
31 to 35	-	-	-				1	2	3	-	-	1	2	-	20
26 to 30	-	-	-				2	-	5	1	-	2	11	-	17
21 to 25	1	3	2	2	2	1	2	-	7	1	-	5	8	-	36
16 to 20	-	1	3	1	4	4	8	2	14	4	-	8	12	-	35
11 to 15	2	2	9	7	12	18	8	3	21	7	-	31	12	-	44
6 to 10	4	0	22	14	13	29	14	1	22	21	-	74	15	-	53
1 to 5	5	4	25	38	8	27	8	5	17	41	-	95	20	-	29
0	3	-	1	6	2	5	-	-	3	11	-	15	1	-	3
-1 to -5	1	-	3	6	7	9	5	1	6	19	-	41	12	-	40
-6 to -10	-	-	-	-	-	-	4	1	5	3	-	8	11	-	35
-11 to -15	-	-	-	-	-	1	-	-	2	1	-	3	12	-	36
-16 to -20	-	-	-	-	-	-	-	1	-	-	-	-	8	-	25
-21 and below	-	-	-	-	-	-	1	-	-	-	-	-	12	-	48
TOTAL	16	10	66	74	48	94	55	17	115	109	-	283	158	-	477

[a] Difference Score ("Gain" or "Loss") = (Posttest Score) - (Pretest Score)

[b] For purposes of this distribution, grade-equivalent scores for grades 6 and 9 are multiplied by 10 with the decimal point omitted.

TABLE 18

Percentage Distribution of Two-W Students' Difference Scores in Mathematics, by Three "Treatment" Groups and by Grades[a]

Class Interval	Grade 4			Grade 5			Grade 6			Grade 8			Grade 9		
	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None	Basic	Total	None
51 and over							1.8	-	1.8				3.7	-	5.0
46 to 50							-	5.9	.9				1.3	-	.8
41 to 45							-	-	1.7				3.8	-	1.7
36 to 40	-	-	1.5				1.8	-	4.3				4.4	-	4.2
31 to 35	-	-	-				1.8	11.8	2.6	-	-	.4	1.3	-	4.2
26 to 30	-	-	-				3.6	-	4.3	.9	-	.7	7.0	-	3.6
21 to 25	6.3	30.0	3.0	2.7	4.2	1.1	3.6	-	6.1	.9	-	1.8	5.1	-	7.5
16 to 20	-	10.0	4.5	1.4	8.3	4.3	14.5	11.8	12.2	3.7	-	2.8	7.6	-	7.3
11 to 15	12.5	20.0	13.6	9.5	25.0	10.1	14.5	17.6	18.3	6.4	-	11.0	7.6	-	9.2
6 to 10	25.0	-	33.3	18.9	27.1	30.9	25.5	5.9	19.1	19.3	-	26.1	9.5	-	11.1
1 to 5	31.3	40.0	37.9	51.4	16.7	28.7	14.5	29.4	14.8	37.6	-	33.6	12.7	-	6.1
0	18.8	-	1.5	8.1	4.2	5.3	-	-	2.6	10.1	-	5.3	.6	-	.6
-1 to -5	6.3	-	4.5	8.1	14.6	9.6	9.1	5.9	5.2	17.4	-	14.5	7.6	-	8.4
-6 to -10	-	-	-	-	-	-	7.3	5.9	4.3	2.8	-	2.8	7.0	-	7.3
-11 to -15	-	-	-	-	-	1.1	-	-	1.7	.9	-	1.1	7.6	-	7.5
-16 to -20	-	-	-	-	-	-	-	5.9	-	-	-	-	5.1	-	5.2
-21 and below	-	-	-	-	-	-	1.8	-	-	-	-	-	8.2	-	10.1

[a]Derived from Table 17

Also evident from these two tables is the concentration of difference scores in the 1-20-point range of increases. This is shown even more clearly in Table 19. Only for the "Total" group in grade 4, where the number of sutdents is small, is the proportion of 21-to-31-point increases (30%) as large as those for corresponding 1-to-10-point or 11-to-21-point increases. And only for the "Basic" group in grade 9, is the proportion of 31-or-more-point increases (15%) as large as those for corresponding 1-to-10-point or 11-to-21-point increases.

Also shown by Table 19 is the fact that 417 students had posttest scores in mathematics equal to or lower than their pretest scores. The proportions of such zero or negative difference scores in grades 4 to 8 range from 6 per cent ("Not-Serviced" group, grade 4) to 39 per cent ("Not-Serviced" group, grade 9.)

A count of the frequencies in Table 19, by difference intervals, shows the numbers of students in each treatment group whose posttest scores differed from their pretest scores by specified numbers of points in all grades combined. Such an overall summary, for the two serviced groups combined and the non-serviced group, is provided below.

Increase or Decrease Category	"Basic" and "Total" Group (N=487)	"Not-Serviced" Group (N=1035)	All Groups (N=1,522)
Score remained same or decreased	128 (26%)	289 (28%)	417 (27%)
Score increased by 1 to 10 points	211 (43%)	393 (38%)	604 (40%)
Score increased by 11 to 20 points	85 (17%)	187 (18%)	272 (18%)
Score increased by 21 to 30 points	33 (7%)	75 (7%)	108 (7%)
Score increased by 31 or more points	30 (6%)	91(9%)	121 (8%)
Score increased by 21 or more points	63 (13%)	166 (16%)	229 (15%)

TABLE 19

Number and Percent of Two-W Students whose Pretest-Posttest Difference Scores in Mathematics Increased by Specified Numbers of Points, or Remained the Same or Decreased, by Three "Treatment" Groups and by Grades[a]

Grade, "Treatment" Group, and Number	No Increase + Decrease		Increase: 1 to 10 Points		Increase: 11 to 20 Points		Increase: 21 to 30 Points		Increase: 31 or More Points		Increase: 21 or More Points	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Grade 4:												
Basic (N = 16)	4	25	9	56	2	13	1	6	-	-	1	6
Total (N = 10)	-	-	4	40	3	30	3	30	-	-	3	30
None (N = 66)	4	6	47	71	12	18	2	3	1	2	3	3
Grade 5:												
Basic (N = 74)	12	16	52	70	8	11	2	3	-	-	2	3
Total (N = 48)	9	19	21	44	16	33	2	3	-	-	2	3
None (N = 94)	15	16	56	60	22	23	1	1	-	-	1	1
Grade 6:												
Basic (N = 55)	10	18	22	40	16	29	4	7	3	5	7	13
Total (N = 17)	3	18	6	35	5	29	-	-	3	18	3	18
None (N = 115)	16	14	39	34	35	30	12	10	13	11	25	22
Grade 8:												
Basic (N = 109)	34	31	62	57	11	10	2	2	-	-	2	2
Total (N = 0)	-	-	-	-	-	-	-	-	-	-	-	-
None (N = 283)	67	24	169	60	39	14	7	2	1	.3	8	3
Grade 9:												
Basic (N = 158)	56	35	35	22	24	15	19	12	24	15	43	27
Total (N = 0)	-	-	-	-	-	-	-	-	-	-	-	-
None (N = 477)	187	39	82	17	79	17	53	11	76	16	129	27

[a]Derived from Table 17

Whereas the scores in mathematics of about one-fourth (27%) of the 1,522 students remained the same or decreased between pretest and posttest, the scores of nearly three-fourths (73%) of these students increased by one or more points. The scores of one-third of the students (33%) increased by 11 or more points, and the scores of one-twelith (8%) of them increased by 31 or more points.

Differences in this respect between the 487 serviced students and the 1,035 non-serviced students are minimal. In none of the categories do their comparative percentages vary more than 5 points. Here, again, it is apparent that the non-serviced students progressed in mathematics achievement as much as those serviced in skills centers by the "Basic" and "Total" approaches.

As in the case of reading achievement, there appears to be little correlation between the number of days students were serviced in the skills centers and their pretest, posttest or difference scores in mathematics. The coefficients shown in Table 20 for 464 students range from -.21 to .22, and only 2 of the 15 coefficients (grade 9, pretest and posttest) are statistically significant at the .05 level.

These several sets of analyses show that most of the students serviced by Two-W skills centers improved their achievement in both reading and mathematics between pretest and posttest, some of them substantially. However, these improvements cannot be interpreted as program effects, since the students who were not serviced by the skills centers improved their achievement as much or more than those who were serviced.

This finding, for both reading and mathematics achievement, raises questions about the skills-center program that cannot be answered by the data at hand. Possible explanations were suggested in connection with the analysis of reading achievement. Further study of the questions is urgently in order.

TABLE 20

Correlation between two-W Students' Pretest, Posttest and Difference Scores in Mathematics and Number of Days Serviced.

		Pretest Scores		Posttest Scores		Difference Scores	
Grade	Number b	Correlation Coefficient a	Level of Significance	Correlation Coefficient a	Level of Significance	Correlation Coefficient a	Level of Significance
4	25	.044	-.417	-.212	.155	-.215	.152
5	111	.033	.489	.087	.183	.088	.178
6	72	-.147	.108	.047	.346	.131	.137
8	109	.087	.184	.152	.058	.085	.191
9	147	.223[c]	.003	.224[c]	.003	.090	.138
	464						

a - Product moment Coefficient of Correlation

b - Including only students in the "Basic" and "Total" groups for whom days-serviced data are available.

c - Significant at the .05 level.

Special and Remedial Services Project

Assessment data for the Special and Remedial Services Project consist of judgements by school administrators and itinerant teachers in the program, together with pretest-posttest achievement data for the students serviced by the Project.

School Administrators

Nineteen administrators of schools serviced by the Special and Remedial Services Project responded to this inquiry.

Asked what special problems they experienced this year in implementing the Project, 13 replied "None." Two problems listed by the others, together with frequencies, are: difficulties with the Project's central office (1), and scheduling students for the program (4).

The main strengths of the Program as perceived by the respondents are:

1. Individualized instruction (7).
2. Qualified personnel (6).
3. Availability of needed instructional materials (4).
4. Progress in reading and mathematics made by students (4).
5. Availability of SRS teacher to identify learning problems (2).
6. Availability of SRS teachers for parent conferences (2).
7. The Project Coordinator (1).
8. Commitment of the SRS teachers (1).
9. Continuity of SRS personnel (1).
10. Improved self-confidence of students (1).

The main weaknesses listed by the administrators are:

1. Not enough time for student/teacher work (5).
2. Program lacks continuity (4).
3. Too few teachers (3).
4. Scheduling (2).

Four respondents replied "none" to the question about main weaknesses. Several others listed one weakness each, relating to the assignment of teachers to schools, redundant testing of students, lack of coordination with home room teachers, and the teaching of English as a second language.

These administrators' suggestions for improving the program are:

1. More time for work with students (5).
2. Continue with the same SRS teachers each year (4).
3. Schedule teachers early in the school year (2).
4. More coordination and interaction between SRS teachers and regular classroom teachers (2).
5. Standardized guidelines for program implementaion (1).
6. Continue practice of drill in basic areas (1).
7. Wider dissemination of information about the SRS program (1).
8. "None" (1).

These several sets of judgements by school administrators reflect a strongly positive assessment of the Special and Remedial Services Program. They also point to some important problems and weaknesses in program implementation along with corrective suggestions.

Itinerant Teachers

The 9 (out of 24) itinerant teachers who responded to this inquiry assessed the Special and Remedial Services Project in terms of its strengths, weaknesses, overall effectiveness, and suggestions for improvements.

The main strengths they listed, together with their frequencies, are:

1. Emphasis on individualized instruction (6).
2. Availability of a variety of excellent instructional materials (5).
3. Small classes of students (4).
4. Improvement effected in students' achievement and self-concept (2).
5. Excellent workshops (2).

Other strengths listed, with one frequency each, relate to the administrative staff, work with special-needs students, and pre-post evaluation of students' growth.

The main weaknesses they listed are:

1. Too little time to work with students (5).

2. Staff too small to serve the need (3).

Other weaknesses listed, with one frequency each, relate to the broad scope of itinerant teachers' assignments (i. e., both elementary and high school levels), the excessive time required for the Stanford Achievement Test, and lack of cooperation between the SRS staff and the staffs of participating schools.

The suggestions for improvement listed by these itinerant teachers are:

1. Assign teachers to 1 or 2 schools, not 3 (2).

2. Develop full understanding of and agreement on policy between SRS and target schools (2).

Other suggestions, with one frequency each, call for restricting the program to non-public schools, SRS summer program, additional staff, more staff-development services and flexible scheduling.

Asked to assess "the overall effectiveness of the Special and Remedial Services Project in fostering student development", the respondents gave the ratings indicated by frequencies below.

Not at all effective	-
Minimally effective	-
Substantially effective	1
Highly effective	7
Extremely effective	1
No basis for judgement	-

It is evident from these responses that the itinerant teachers here reported evaluate the Special and Remedial Services Project highly, but that (with one exception) they are aware of and have

proposals to correct a number of specific weaknesses in the program.

Students' Academic Achievement

As previously noted, available achievement test data for students in the Special and Remedial Services Project include 725 pairs of pretest-posttest raw scores on the Metropolitan Achievement Test in Reading, and 418 such pairs of raw scores on the Stanford Achievement Test in Mathematics, grades 1 through 12. The assessment consists of straight-forward comparisons of students' pretest performance and posttest performance by grades, together with analysis of the extent of "gains" and "losses" between pretest and posttest. All calculations were made by computer.

READING: The analysis for achievement in reading includes comparative mean scores, correlation coefficients, standard deviations, and difference scores (i.e., "gains" and "losses") -- all based on the Metropolitan Reading Test.

Table 21 shows pretest-posttest differences in mean scores in reading, by grades, together with their respective probability values. It also shows product moment correlation coefficients for pretest and posttest distributions of scores.

It may be seen from Table 21 that, in all grades except 2, 11 and 12, where numbers are small, there are positive and highly significant mean differences between these students' pretest and posttest scores, the differences ranging from 5.5 (grade 6) to 11.7 (grade 4). It is clear, except for the three grades noted, that the reading achievement of these students improved significantly between the pretest in September, 1977 and posttest in May 1978.

As would normally be expected, there is close correlation between these students' performance on the pretest and posttest in most of the grades. In grades 4, 5, 6, 7, 8, 10, and 12, the coefficients of correlation shown in Table 21 range from .66 to .86. In grades 2, 3, 9 and 11, the coefficients are lower, ranging from .04 to .47.

The standard deviations of students' pretest scores and posttest scores (not shown in Table 21) reveal very little change in variability for most grades. Posttest-minus-pretest differences in standard deviation range from - .6 to .5 for grades 5 through 10; from - 2.3 to 2.0 for grades 11 and 12; from 4.7 to 5.1 for grades 3 and 4; and the difference for grade 2 is - 23.2. Thus, only for grade 2 does it appear that variability in students' scores lessened substantially betwen pretest and posttest, and the small number of students in grade 2 makes this apparent difference suspect.

Table 22 shows the distribution of students' difference scores by grades; that is, the numbers and percentages of students whose pretest-to-posttest scores increased or decreased by specified number of points. For example, 2 of the grade 2 students' scores in reading (18.2%) increased by from 1 to 5 points; and one student's score (9.1%) increased by from 41 to 45 points. It may be noted

TABLE 21

Mean Differences and Correlations between SRS Students' Pretest and Posttest Scores in Reading, by Grades

Grade	Number	Pretest Mean	Posttest Mean	Difference	T-Value	Probability[a]	Correlation Coefficient
2	11	40.5	38.6	- 1.8	- .18	.862	.04
3	52	36.2	41.3	8.7	4.93	.000	.40
4	87	34.4	46.1	11.7	9.08	.000	.69
5	107	37.9	44.2	6.3	4.81	.000	.67
6	108	37.0	42.5	5.5	4.74	.000	.67
7	67	46.6	53.5	6.9	7.21	.000	.78
8	53	48.5	52.6	4.2	3.90	.000	.86
9	146	41.1	51.3	10.2	8.67	.000	.37
10	57	50.8	56.5	5.6	3.21	.002	.66
11	20	50.1	52.4	2.3	.86	.401	.47
12	17	50.6	50.9	.3	- .15	.883	.72
	725						

[a]Two-tailed probability

TABLE 22

Frequency and Percentage Distribution of
SRS Students' Difference Scores in Reading, by Grades

Class Interval	Difference Scores[a]																					
	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12	
	F's	%	F's	%	F's	%	F's	%	F's	%	F's	%	F's	%	F's	%	F's	%	F's	%	F's	%
51 & over															2	1.4						
46 to 50															1	.7						
41 to 45	1	9.1					1	.9							-	-						
36 to 40	-	-	1	1.9	1	1.1	1	.9							2	1.4						
31 to 35	1	9.1	4	7.7	3	3.4	2	1.1							3	2.1						
26 to 30	1	9.1	2	3.8	11	12.6	3	2.8	4	3.7	1	1.5			7	4.8	3	5.3				
21 to 25	1	9.1	2	3.8	9	10.3	8	7.5	7	6.5	3	4.5	1	1.9	10	6.8	6	10.5	1	5.0		
16 to 20	-	-	7	13.5	6	6.9	13	12.1	12	11.1	3	4.5	4	7.5	30	20.5	6	10.5	1	5.0	1	5.9
11 to 15	1	9.1	4	7.7	16	18.4	13	12.1	15	13.9	13	19.4	4	7.5	20	13.7	11	19.3	3	15.0	1	5.9
6 to 10	-	-	8	15.4	12	13.8	12	11.2	18	16.7	23	34.3	14	26.4	18	12.3	4	7.0	5	25.0	3	17.7
1 to 5	2	18.2	8	15.4	16	18.4	20	18.7	18	16.7	11	16.4	18	34.0	18	12.3	7	12.3	2	10.0	3	17.7
0	-	-	4	7.7	-	-	2	1.9	6	5.5	2	3.0	1	1.9	2	1.4	-	-	-	-	1	5.9
-1 to -5	-	-	7	13.5	6	6.9	10	9.3	9	8.3	5	7.5	3	5.7	9	6.2	6	10.5	3	15.0	4	23.5
-6 to -10	-	-	3	5.8	5	5.7	10	9.3	8	7.4	5	7.5	6	11.3	14	9.6	3	5.3	-	-	2	11.8
-11 to -15	-	-	2	3.8	2	2.3	5	4.7	5	4.6	-	-	2	3.8	9	6.2	9	15.8	3	15.0	2	11.8
-16 to -20	-	-	-	-	-	-	5	4.9	3	2.8	1	1.5	-	-	1	.7	2	3.5	2	10.0	-	-
-21 & below	4	36.4	-	-	-	-	2	1.9	3	2.8	-	-	-	-	-	-	-	-	-	-	-	-
Total Frequency	11		52		87		107		108		67		53		146		57		20		17	

[a]Difference Score = (posttest Score) - (Pretest Score)

TABLE 23

Per Cent of SRS Students Whose Pretest-to-Posttest Scores in Reading Increased by Specified Numbers of Points, by Grades[a]

	Per Cent of Students					
Grade	No increase or loss	Increase: 1 to 10	Increase: 11 to 20	Increase: 21 to 30	Increase: 31 or more	Increase: 21 or more
2	36.4	18.2	9.1	18.2	18.2	36.4
3	30.8	30.8	21.2	7.6	9.6	17.2
4	14.9	32.2	25.3	22.9	4.5	27.4
5	29.9	29.9	24.2	10.3	3.7	14.0
6	28.6	33.4	25.0	10.2	-	10.2
7	19.5	50.7	23.9	6.0	-	6.0
8	22.7	60.4	15.0	1.9	-	1.9
9	24.1	24.6	34.2	11.6	5.6	17.2
10	35.1	19.3	29.8	15.8	-	15.8
11	40.0	35.0	20.0	5.0	-	5.0
12	53.0	35.4	11.8	-	-	-

[a]Derived from Table 22

that the scores of most students in all grades increased, mainly in the range of 1 to 20 points. However, substantial numbers of students' posttest scores were identical to or lower than their pretest scores.

By counting the frequencies of Table 22, ignoring grade levels, one can determine the numbers of students whose scores increased or decreased by any given number of points. Such a count shows that, of the 725 students represented in the Table, the scores of:

527 (72.7%) increased 1 or more points,
296 (40.8%) increased 11 or more points, and
198 (27.3%) remained the same or decreased.

Thus, nearly three-fourths of the students achieved some increase in reading scores, and about two-fifths of them achieved substantial increases. The scores of about one-fourth of the students remained constant or decreased.

These relationships are shown by grades in Table 23. For example, the scores of 36.4 per cent of the students in Grade 2 did not increase; but 18.2 per cent of them increased by 21 to 30 points, and 36.4 per cent of them increased for 21 or more points.

Inspection of Table 23 reveals that increases of 31 or more points occurred only among students in Grades 2, 3, 4, 5, and 9; there were no increases of this magnitude in the other six grades. Also evident from the Table is the concentration of score increases within the range of 1 to 20 points.

Since there is no comparison (or "control") group available, it is impossible to judge how much the differences in pretest-posttest scores here reported can be interpreted as program effect. It is clear, however, that a large majority of the students in the Special and Remedial Services Project did experience growth in reading achievement during 1977-78, and that such growth was substantial for at least 40 per cent of the students.

MATHEMATICS: The analysis of students' achievement in mathematics follows the pattern used in the case of reading. Four hundred eighteen students are involved.

Table 24 shows positive and highly significant differences between mean pretest and posttest scores in mathematics in all grades. In grades 1 through 9, these mean differences range from 12.2 to 17.0 points, but are smaller in grades 10, 11 and 12.

Also shown by Table 24 are high correlations between distributions of pretest scores and posttest scores. The coefficients range from .59 in grade 2 to .99 in grade 10.

Standard deviations (not shown in Table 24) indicate some decrease in variability in 6 of the grades, and some increase in variability in the other 6 grades. Specifically, differences between pretest standard deviations and posttest standard deviations range from

TABLE 24

Mean Differences and Correlations between SRS Students' Pretest and Posttest Scores in Mathematics, by Grades

Grade	Number	Pretest Mean	Posttest Mean	Difference	T-Value	Probability[a]	Correlation Coefficient
1	11	9.2	25.1	15.9	5.58	.000	.62
2	38	28.1	40.6	12.4	7.49	.000	.59
3	42	40.8	57.6	16.8	10.28	.000	.60
4	62	30.2	47.2	17.0	11.57	.000	.66
5	70	35.8	51.7	15.9	11.23	.000	.67
6	68	38.1	53.0	14.9	10.41	.000	.75
7	58	56.5	70.9	14.4	10.33	.000	.79
8	25	52.5	64.7	12.2	5.87	.000	.86
9	21	27.9	71.4	13.5	5.76	.000	.89
10	8	62.2	67.2	5.0	5.0	.002	.99
11	4	63.8	71.8	8.0	3.77	.033	.94
12	11	67.1	73.3	6.2	4.28	.002	.98
	418						

[a]Two-tailed probability

- 1.3 to - 8.4 in grades 1, 2, 3, 9, 10 and 12; and they range from .2 to 6.2 in grades 4, 5, 6, 7, 8 and 11.

As may be seen from Table 25, the difference scores for these students cover a wide range in all grades except 10, 11 and 12. In some grades, the range is approximately from - 15 to 45, reflecting increased scores for many students and decreased scores for some. Inspection of the Table shows that difference - score frequencies tend to concentrate in a 20-point range, from 1-to-5 interval to the 16-to-20 interval.

Counting the frequencies for selected intervals in Table 25 shows the number of students, regardless of grades, whose posttest scores were larger, the same as, or smaller than their pretest scores. Among the 418 students represented in the Table, the scores of:

380 (90.1%) increased by 1 or more points,
261 (62.4%) increased by 11 or more points, and
38 (9.1%) remained the same or decreased.

These proportions for increases in mathematics scores are substantially larger than was found for students' scores in reading -- about one-fourth larger for increases of 1 or more points, and one-half larger for increases of 11 or more points. Conversely, the proportion for same or lower mathematics scores is only one-third as large as in the case of reading scores.

The percentages of students whose mathematics scores increased by specified numbers of points are shown in Table 26, The concentration of difference - score increases in the 1 to 20-point range is here evident, although the proportions of students with increases of 21 to 30 points are also substantial. The largest proportions of score increases of 31 or more points are in grades 3, 4, and 5. The largest proportions of same or lower scores are in grades 6 and 8.

In general, these comparisons of pretest and posttest scores for students in the Special and Remedial Services Project show substantial academic growth during 1977-78. Although some students' scores remained the same or decreased (41 per cent in reading and 9 per cent in mathematics), the large majority of students increased their achievement scores,considerably more of them in mathematics than in reading. Variability in achievement among these students is marked, and did not change substantially during the year.

This analysis cannot assess the extent to which students' academic growth is due to program treatment. Nevertheless, considering the nature of that treatment, it is probable that much of the overall improvement in academic achievement here shown can safelty be interpreted as program effect.

TABLE 25

Frequency and Percentage Distributions of SRS
Students' Difference Scores in Mathematics, by Grades

Class Interval	Difference Scores[a] Grade 1 F's	%	Grade 2 F's	%	Grade 3 F's	%	Grade 4 F's	%	Grade 5 F's	%	Grade 6 F's	%	Grade 7 F's	%	Grade 8 F's	%	Grade 9 F's	%	Grade 10 F's	%	Grade 11 F's	%	Grade 12 F's	%
41 to 45					1	2.4	1	1.6					1	1.7			1	4.8						
36 to 40					-	-	4	6.5	4	5.7			2	3.4	1	4.0	-	-						
31 to 35			2	5.3	4	9.5	6	9.7	6	8.6	6	8.8	1	1.7	-		1	4.8						
26 to 30	2	18.2	2	5.3	3	7.1	3	4.8	4	5.7	12	17.6	2	3.4	-	-	1	4.8						
21 to 25	1	9.1	4	10.5	8	19.0	9	14.5	9	12.9	7	10.3	5	8.6	3	12.0	1	4.8						
16 to 20	4	36.4	8	21.0	5	11.9	8	12.9	10	14.3	11	16.2	15	25.9	5	20.0	1	4.8					1	9.1
11 to 15	-	-	5	13.1	9	21.4	10	16.1	12	17.1	9	13.2	16	27.6	7	28.0	7	33.3			2	50.0	-	-
6 to 10	2	18.2	6	15.8	7	16.7	11	17.7	12	17.1	7	10.3	6	10.3	2	10.0	3	23.8	4	50.1	1	25.0	4	36.4
1 to 5	2	18.2	7	18.4	1	2.4	7	11.3	8	11.4	6	8.8	3	5.2	12	12.0	3	14.3	4	50.1	1	25.0	6	54.5
0	-	-	-	-	2	4.1	-	-	-	-	2	2.9	1	1.7	2	8.0	1	4.8	-	-	-	-	-	-
- 1 to - 5	-	-	3	7.9	1	2.4	3	4.8	3	4.3	4	5.9	5	8.6	1	4.0	-	-	-	-	-	-	-	-
- 6 to -10	-	-	1	2.6	1	2.4	-	-	1	1.4	4	5.9	-	-	1	4.0	-	-	-	-	-	-	-	-
-11 to -15	-	-	-	-	-	-	-	-	1	1.4	-	-	1	1.7	-	-	-	-	-	-	-	-	-	-
Total Frequencies	11		38		42		62		70		68		58		25		21		8		4		11	

[a]Difference Score = (Posttest Score) - (Pretest Score)

TABLE 26

Per Cent of SRS Students whose Pretest-Posttest Scores in Mathematics Increased by Specified Numbers of Points, by Grades[a]

Grade	No Increase or Loss	Increase: 1 to 10	Increase: 11 to 20	Increase: 21 to 30	Increase: 31 or more	Increase: 2[illegible] or More
1	-	36.4	36.4	27.3	-	
2	10.5	34.4	34.1	15.8	5.3	
3	8.9	19.1	33.3	26.1	11.9	
4	4.8	29.0	29.0	19.0	17.8	
5	7.1	28.5	31.4	18.6	14.3	
6	14.7	19.1	29.4	27.9	8.8	
7	10.3	15.5	53.5	12.0	6.8	
8	16.0	22.0	48.0	12.0	4.0	
9	-	38.1	38.1	9.6	9.6	
10	-	100.1	-	-	-	
11	-	50.0	50.0	-	-	
12	-	90.9	-	-	-	

[a]Derived from Table 13

The data here analyzed suggest that the Special and Remedial Services Project had a definitely positive impact on the receptors involved. School administrators and itinerant teachers identify strengths in the program that are consistent with its mission. They note important problems and weaknesses, mainly relating to implementing procedures; but their overall assessment of the Project's effectiveness is high. Most important, the academic achievement of most students served by the Project improved significantly during the year, both in reading and in mathematics.

Round Meadow Outdoor Laboratory School Project

Evaluative data for the Round Meadow Outdoor Laboratory School Project include judgments by a fairly substantial number of school administrators and regular teachers, two staff persons, and students' respones to an inventory and test administered before and after the camp experience, together with the responses of non-campers to the same instrument.

School Administrators

Thirty-three of the school administrators responding to this inquiry (on Form A-1c) said that students from their school attended the Round Meadow Camp, and gave their appraisals of the program.

The main strengths noted by the respondents, together with their frequencies, are:

1. Experience of camp life, exercise in an outdoor environment (12)
2. Opportunity to learn in a natural setting (11)
3. Orientation and follow-up (7)
4. Opportunity to meet new friends (5)
5. Direct participation of children (4)
6. Staff personnel (3)
7. Promotes independence in the child (2)
8. Provides the school with evaluation (2)

Others noted, with one frequency each, that the program builds sense of responsibility and sharing, develops classification skills, and provides for continuity of development.

These administrators rated the following special problems they encountered in the conduct of the Project in their schools.

1. Participation permitted by students behind in their studies (4).

2. Inadequate medical services at camp (4).

Other special problems listed, with one frequency each, relate to scheduling, transportation of teachers to camp, limitations on program due to a fire at the camp, and inability of science resource teacher to work with students on a continuing basis.

The main weaknesses listed by these respondents are:

1. Too few students get to participate (21).

2. Inadequate follow-up (3)

3. Not enough personnel for supervision (3).

4. Inadequate preparation for camp (2).

5. Scheduling (2).

6. No syllabus for participating teachers (1).

7. Teachers not included in camp experience (1).

8. No summer session(1).

9. "None" (3).

Many of the suggestions for improvement listed these school administrators (e.g., offer the program to more students) reflect

directly the weaknesses they noted. Different ideas included among their suggestions are:

1. More follow-up by camp leaders (4).

2. Orient follow-up activities to the urban setting (3).

3. Provide guidelines for the interaction of students from different background (2).

Other suggestions, one frequency each, call for an enlarged budget, parent visits to the camp, more camps in different settings, and sharing students' camp projects with home schools.

Asked to evaluate the camp and post-camp follow-up components of the Round Meadow Outdoor Laboratory School Project, the respondents gave the following ratings:

	Camp Experience	Post-Camp Follow-Up
No Value.....	-	1
Little Value.....	1	3
Substantial Value.....	5	3
Great Value.....	8	6
Very Great Value.....	19	16
	33	29
No Basis To Judge.....	-	2

Clearly, these school administrators assess the Project highly, the camp experience somewhat more so than the follow-up program. Of those expressing judgments, 82 percent rate the camp experience as of "Very Great" or "Great" value, and 76 percent give these ratings to the post-camp follow-up program. Only one respondent said that one of the program components was of "No Value".

Regular Teachers

All of the 13 regular teachers responding to this inquiry (on Form OLS-4) said that students in their classes had attended the Round Meadow Camp. They provided information about their participation in and assessment of the Outdoor Laboratory School Project. Table 27 shows the number of respondents who reported participation in 6 specified activities and several others that they added.

TABLE 27

Activities Participated in by Regular Teachers of Classes Attending the Round Meadow Camp[a].

Activities [b]	Frequencies
1. Oriented students on the purpose and nature of the camp experience	13
2. Visited the camp myself	11
3. Conducted special skills - development instruction with students following camp.....	10
4. Took students on field trips following camp	9
5. Conducted special intercultural activities with students following camp	8
6. Participated in one or more staff conferences preparing to work with the project	5
7. Introduced follow-up activities	2
8. "Nature center activities"	2
9. Prepared exhibit materials/crafts	1
10. Constructed water plant	1
11. Showed nature movies	1
12. Integrated camp methods into regular school programs	1
13. "Other" (not specified)	3

a Only teachers whose students attended camp responded to the inquiry, although others were invited to do so.

b Activities numbered 1,2,3,5 and 6 were listed on the inquiry form; the others were added by respondents.

It may be seen that the first five project activities listed in Table 27 were participated in by from 8 to 13 (62 to 100%) of these regular teachers; and that the sixth acitivity listed (staff conferences) was participated in by 5 (38%) of them. Frequencies are smaller for the activities added to the form by respondents.

These regular teachers listed the following main strengths of the Outdoor Laboratory School Project:

1. Students gained knowlege about plant and animal life in the outdoor environment. (8)
2. Teachers interested in the Project (6)
3. Students gained knowledge about themselves. (5)
4. Well-developed instructional units. (4)
5. On-site teaching. (3)

Other strengths listed, one frequency each, relate to improved critical-thinking and problem-solving, interaction with students from other schools, high motivation of students, clinical experience, weekly follow-up, and materials provided for classroom teachers.

The main weaknesses noted by these respondents are:

1. Too few students participate (5).
2. Time in camp too short (3).
3. No follow-up (2).
4. No incorporation of classroom teacher into program (2).
5. Inadequate science program in the school to correlate with camp program (1).
6. Lack of field trips during the year (1).

Some of the suggestions for improvement offered by these regular teachers (e.g., involve classroom teacher) correspond to weaknesses previously noted. Additional ideas include: Follow-up summer activity (2); more continuity of staff members (1); more funds for participating schools (1); purchase plants to grow in

schools (1); reinstate pretest/posttest (1); extend program to grade 5; one year introduction nd one year follow-up (1); and present culminating projects to the entire school (1).

Asked what professional-development needs they perceived to enhance their own effectiveness in the program, 8 of the 13 regular teachers listed "workshops" dealing with the Project. Two other needs listed (one frequency each) are books and worksheets on ecology, and a science curriculum guide.

Students

The "Student Inventory" was administered by project staff late in the year to students who attended the Round Meadow Camp during May and June, to students who attended the Camp seven or more months earlier, and also to non-campers. The instrument (Form OLS-1) has two parts: Part I - "About Your Feelings", and Part II - "How Much Do You Know?". The second section includes a True-False Test and a Matching Test. Part I, of course, has no "right" or "wrong" answers; but Part II does.

In Part I, students were asked to tell "what you think about taking part in an outdoor school program: by checking "Yes", "No", or "Not sure" for each of 25 statements. The frequencies with which the spring campers, fall campers, and non-campers checked alternative responses for the several statements are shown in Appendix Table B. The total numbers of students who responded to the several items are fairly constant, varying from 104 to 110 among the spring campers, from 75 to 78 among the fall campers, and from 35 to 38 among the non-campers.

Percentages of responses to the several items, derived from Appendix Table B, are shown in Table 28.

The "before" and "after" responses of the spring campers reveal only a few differences that seem programmatically important. For example: after the camp experience, proportionately more of them like going to outdoor camp (#1), and would enjoy outdoor school a little while (#13); but proportionately fewer of them would want to go to camp school all the time (#17). Whereas, before camp only 48 per cent of the spring campers thought it was easier to make new friends in camp than in regular school (#15), about 71 per cent thought so after camp. For the most part, however, spring campers' before and after responses do not show marked differences.

There are some notable differences between the after-camp responses of spring campers and fall campers. For example: after camp, 71 per cent of the spring campers thought it was easier to make new friends in camp than in regular school (#15); but only 67 per cent of the fall campers thought so. Whereas 76 per cent of the spring campers thought you can learn more when taught by a number of different teachers (#22), only 67 per cent of the fall campers thought so. In general, there is more similarity than contrast between the responses of these two groups of students.

Contrasts between the campers and non-campers are more marked. For example: whereas 87 or 88 per cent of the spring and fall campers like going to an outdoor school (#1), only 35 per cent of the non-campers do. Ninety-two or 93 per cent of the spring and fall campers think it is fun collecting things from nature (#5), as compared with 78 per cent of the non-campers.

TABLE 28

Percent of Students Reporting Their "Feelings" about Outdoor Learning, before and after Camp: Spring '78 Campers, Fall '77 Campers and Non-Campers(a)

"About Your Feelings"	Percent "Yes"			
	Spring Campers		Fall	Non-
	Before	After	Campers	Campers
1. I like going to an outdoor school	72.2	86.7	88.0	35.1
2. I like taking part in activities with people of different races and nationalities	88.3	87.7	85.7	83.8
3. I like playing and learning in different kinds of places	93.0	93.4	98.7	94.7
4. I like talling about interestings thing to do	78.7	81.0	75.6	84.2
5. It is fun to collect things from nature	80.0	92.3	93.4	77.8
6. I am interested in learning about other cultures	72.4	74.3	74.4	81.1
7. I enjoy arts and crafts	92.2	90.5	97.4	84.2
8. Field trips help to making learning fun	91.0	91.5	94.7	83.8
9. Studying about nature is fun	75.4	93.3	90.8	86.5
10. I am comfotable with children of other races	58.9	75.2	71.8	45.9
11. A camp is a good place to studn and learn	81.8	90.5	97.4	83.8
12. It is hard to talk to children whose race is different from mine	33.3	33.6	30.8	59.5
13. I would enjoy an outdoor school for a little while	58.8	67.3	68.8	60.5
14. I like studying in a school classroom better than a camp	24.7	24.1	26.0	66.7
15. It is easier to make new friends in a camp than in regular school	47.8	70.9	63.2	34.3
16. You can learn many new things in an outdoor school	82.3	95.2	98.7	59.5
17. It would be nice to go to a camp school all the time	55.1	50.9	62.8	26.3
18. You can't learn anything about the environment in one week	23.4	39.6	47.4	25.0
19. Trail hikes and mountain climbing are fun ways to learn	86.6	91.5	89.5	73.7

cont. . .

Table 28 (cont)

"About Your Feelings"	Percent "Yes"			
	Spring Campers		Fall	Non-
	Before	After	Campers	Campers
20. Outdoors is the best way to study nature	84.3	88.8	88.5	97.4
21. Having different classmates helps your learn to get along with others	93.0	92.5	88.6	88.8
22. You learn more when you are taught by a number of different teachers	67.5	76.4	67.5	71.1
23. Making new friends can make you happier	82.6	85.6	81.6	81.6
24. Outdoor school lets you have experiences that a regular school does not	65.4	81.5	85.7	56.8
25. I am afraid to stay away from home overnight	8.8	3.8	5.1	5.3

[a] Derived from Appendix Table B

Whereas about 24 or 26 per cent of the spring and fall campers like studying in a school classroom better than in a camp (#14), 67 per cent of the non-campers do.

After camp, 71 or 63 per cent of the spring and fall campers think it is easier to make new friends in camp than in regular school (#15); only 34 or the non-campers think so. Whereas more than 95 per cent of the spring and fall campers believe you can learn many new things in an outdoor school (#16), only 59 per cent of the non-campers agree. It is interesting, however, that proportionately more non-campers (97%) than spring and fall campers (88%) think outdoors is the best way to study nature (#20).

Ten of the statements shown in Table 16 (#1,5,11,13,15,16,17,19,20 and 24) express positive attitudes toward the particular kinds of experiences provided at the Round Meadow Camp. Comparing their aggregate frequencies (from Appendix Table B) provides a rough index of differences in the attitudes of spring campers, fall campers and non-campers toward those kinds of experiences. Such a comparison is afforded by the following summary:

	Spring Campers (after)	Fall Campers	Non-Campers
Total number of responses to 10 selected items	1,059	767	371
Number of "Yes" responses.....	864	641	225
Per cent of "Yes" responses.....	79.9	83.6	60.6

The fall campers appear to be a bit more positive than the spring campers (after camp) about the kinds of experiences offered at the camp, but both groups of campers are notably more positive in this regard than are the non-campers. It seems that the camp experiences tend stongly to make students more positive in their attitudes toward such experiences.

The True-False and Matching tests of the "Student Inventory" (Part II) sought to determine how much students know about environmental and scientific subjects taught at the Round Meadow Camp. These tests, too, were administered to spring campers (before and after camp) and to fall campers and non-campers. Median scores were computed and are reported in Table 29.

TABLE 29

Median Scores on True-False and Matching Tests of Non-Campers, of Spring '78 Campers, Before and After, and of Fall '77 Campers.

Item	Non-Campers Median	(Number)	Spring '78 Campers Median	(Number)	Fall '77 Campers Median	(Number)
True-False (15 items)						
Pretest	none	--	8.4	(162)	none	--
Posttest	8.7	(51)	10.9	(114)	13.7	(77)
Difference	--	--	2.5[a]	--	--	--
Matching Test (25 items)						
Pretest	none	--	8.7	(165)	none	--
Posttest	8.7	(38)	11.4	(115)	22.0	(42)
Difference	--	--	2.7[b]	--	--	--

[a]Significant at the $<.001$ level. ($X^2 = 24.8$; df.1)

[b]Significant at the $<.001$ level. ($X^2 = 10.83$; df.1)

The relationships revealed by Table 17 are striking.

First, the posttest scores of spring campers on both the True-False Test and the Matching Test are higher than their pretest scores; and the differences are statistically highly significant.

Second, the scores of non-campers on both tests are lower than the corresponding posttest scores of spring campers, which are lower than those of fall campers. These differences, too, are statistically highly significant.

Even though some of the frequencies shown in Table 17 are small, the median differences there shown are convincing evidence that attending camp enhances students' knowledge of what the tests test. Moreover, the fact that the fall campers have higher median scores than the spring campers (after camp) suggests that the post-camp follow-up program (assuming that the fall campers participated) may have enhanced still further their knowledge of what was tested.

These several sets of evaluative data warrant the generalization that the Round Meadow Laboratory School Project had a positive impact on its target receptors during 1977-78. The school administrators,

regular teachers and other professional personnel responding to this inquiry evaluate the program highly, even while noting some important weaknesses in implementation. Moreover, it appears that the camp experience contributed to more positive attitudes among students toward nature study in an outdoor setting; and it is certain that the camp experience increased their knowledge of such environmental and scientific subjects as were tested.

V. SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This inquiry sought to evaluate the 1977-78 Emergency School Act Program of the Public Schools of the District of Columbia. To this end, information was assembled and analyzed concerning four general questions: (1) the extent to which the ESAA program was implemented as planned, (2) the extent of participation in the program by identified target populations, (3) assessments of the program by participating professional and other adult personnel, and (4) assessments of the program by participating students and the educational growth of such students. These questions provided the focus for examination of each component of the ESAA program--Career Education Project, Two-W Project, Special and Remedial Services Project, and Round Meadow Outdoor Laboratory School Project.

The evaluative information assembled and analyzed, although not equally representative for all projects, is quite extensive. It consists of: (1) records of interviews and field observations addressed to the question of program implementation in all four projects; (2) reports and evaluative responses concerning the several projects by 515 professional and other adult participants--school administrators, project staffs, regular classroom teachers, personnel from cooperating agencies, and parents, the latter included among readers of a project publication; (3) reports and assessments by 585 student participants in three projects; and (4) pretest-posttest academic achievement scores for 4,836 students in three projects. These data provide a substantial basis for evaluating the ESAA program.

The analysis relates to both program process and program impact. First, the on-going programs of the several projects are described, and also appraised in terms of their conformance with program plans detailed in their respective Program Designs. Second, the effectiveness of the several component programs is assessed on the basis of the extent of respondents' participation, their subjective opinions, and the objective data available concerning students' academic achievement.

In the light of the data and analyses presented in preceding sections of this report, the following generalizations are warranted.

First, all four of the ESAA projects were developed during 1977-78 in conformance with plans set forth in their respective Program Designs. All of their major program activities were implemented as planned, involving all of the different target populations identified. There were, of course, some problems and weaknesses in the process of program development, but none that substantially altered the nature of the program as originally conceived.

Second, the data available suggest that there was a high level of participation in all four projects by the professional and student personnel to which they were addressed. The numbers of responses to most of the inquiry forms distributed by this study were considerably smaller than desired, and the representativeness of some of them is open to question. It is clear, however, that large proportions of both the professional and student respondents did take part in most of the key program activities addressed to them by the several projects.

The extent of participation in some of the program activities of at least two projects seemed to be limited by inadequate communications. This is notably true in the case of staff-development activities of the Career Education Project and the Alternative and Enrichment programs of the Two-W Project. Many respondents reported that they were unaware of these activities. The major limitation on participation, however, is clearly the lack of sufficient funds -- and hence, personnel -- to extend the programs of all four projects to very large numbers of students and teachers now excluded from their services.

Third, the professional participants in the ESAA program who responded to this inquiry assess all of the projects highly. The weaknesses they point out are mainly procedural, not fundamental; and their suggestions for improvement call largely for more of what is being done, although there are also a few innovative proposals. Overall evaluations are preponderantly and consistently high for all four projects.

These positive assessments by professional respondents are buttressed by the positive appraisals of students where relevant data are available. In the Career Education Project, for example, very substantial proportions of the student respondents report that the school is "helping" with the particular career-education needs they "feel." Students' assessments of their experiences in several of the Two-W Project's Alternative and Enrichment programs are consistently high. And the incidence of positive attitudes among students toward learning in an outdoor setting increased with their participation in the Round Meadow Outdoor Laboratory School Project.

Fourth, there was impressive improvement in the academic achievement of students in the three projects where such development was measured. In the Outdoor Laboratory School Project, scores on tests designed by the Project and the evaluators revealed that students had more knowledge after camp than before camp in the environmental and scientific areas tested, and that their knowledge in these areas was greater than that of non-campers. In the Two-W Project and the Special and Remedial Services Project, where there was a special focus on improving students' basic skills in reading and mathematics, the comparison of pretest and posttest scores on standardized tests revealed that achievement in reading and in mathematics improved for large majorities of the students involved, and that such improvement was especially marked for substantial proportions of the students. Moreover, all of the differences revealed by these comparisons are statistically highly significant.

It should be noted, however, that the extent to which students' achievement gains in two projects represent program effects is open to question. On the average, students who did not participate directly in the Two-W Project's skills centers gained as much as those who did; and there was no comparison group available for assessing the gains of students in the Special and Remedial Services Project.

Taken together, these several sets of findings clearly support the overall conclusion that the 1977-78 Emergency School Aid Act Program was effectively developed and had a positive impact on its target populations.

In the course of this inquiry, the evaluators noted many specific respects in which conduct of the several projects' programs could be improved, mainly procedural; but the correctives are obvious, and proposals at that level of detail can appropriately be left to program planners. Only two recommendations are offered concerning programs.

First, the staffs of the several projects should study carefully the many detailed criticisms and suggestions offered by respondents to this inquiry. They should be meaningful for subsequent program development.

Second, the programs and personnel of each of the projects should be expanded to provide services to larger numbers of teachers and students. This, of course, implies substantial budgetary increases; but they are warranted.

The evaluators' experiences with this project lead to several recommendations for subsequent appraisals of the ESAA Program.

First, the evaluation contract should be let during the summer or early fall, thus permitting the evaluators and program staffs to plan and work together throughout the school year.

Second, the two-phase design used in this evaluation project probably should be maintained: (1) process evaluation on the basis of program designs previously developed; and (2) impact evaluation on the basis of multiple criteria.

Third, small-scale but systematic interim assessments should be made of the impact of each project on its designated receptors, probably twice prior to the summative evaluation. This formative procedure would alert program planners in timely fashion to needed in-course corrections.

Fourth, inquiry forms sent to participants in the several projects should be less comprehensive and more precisely focused than most of those used in this evaluation project. Each such form might well consist mainly of two parts: (1) effectiveness ratings of specified elements of the program, using check-marks; and (2) limited (rather than open-ended) responses to more general evaluation questions (e.g., the "three" most effective program activities). Such forms would yield adequate information, require less time of respondents, and greatly facilitate data-processing.

Fifth, in the case of inquiries to professional personnel, procedures should be devised for determining which persons have returned the forms and which ones have not, while preserving the anonymity of their responses. This would increase substantially the proportion of inquiry forms returned.

Sixth, the pretest-posttest gains in academic achievement by students in a given program (e.g., Two-W skills centers, SRS itinerant teachers) should be interpreted in the light of the performance of comparison-group students in schools not involved with the program. This procedure would facilitate the determination of program effect; and it would minimize at least one contaminating influence, the diffusion phenomenon.

The evaluators have observed many educational programs that look very good on paper, but that are not effectively implemented, and hence contribute little to the development of young people. The 1977-78 Emergency School Aid Act Program of the District of Columbia Public Schools is not one of them. This program is <u>for real</u>.

APPENDIX A

Appendix Table A. Number of Times Students Report Participating in 16 Specified Career Education Activities, by Grade and Sex.

Activities and Response Categories	Number of Times Reported																				Percent of Total		
	Gr 12		Gr 11		Gr 10		Gr 9		Gr 8		Gr 7		Gr 6		Gr 5		Gr 4		Total					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M + F	M	F	Total
1. Went on field trip to industry, government or other																								
Never....	1	3	1	1	5	15	3	5	2	3	1	11	1	0	5	3	0	0	19	41	60	17	27	23
Once.....	3	7	3	1	3	3	1	4	9	18	5	6	10	8	1	0	12	12	47	59	106	42	39	40
More than Once....	13	8	2	5	4	3	3	13	4	6	3	2	2	7	6	3	9	5	46	52	98	41	34	37
	17	18	6	7	12	21	7	22	15	27	9	19	13	15	12	6	21	17	112	152	264	100	100	100
2. Listened to speakers on careers																								
Never....	0	3	1	0	2	5	1	4	0	0	2	11	0	1	6	0	0	0	12	24	36	11	15	13
Once.....	2	2	1	2	4	7	3	4	4	15	7	5	5	6	1	4	0	0	27	45	72	25	28	27
More than Once....	15	12	4	5	6	9	3	13	11	23	0	2	6	7	5	3	20	16	70	90	160	64	57	60
	17	17	6	7	12	21	7	21	15	38	9	18	11	14	12	7	20	16	109	159	268	100	100	100
3. Took part in small group sessions with adult leaders																								
Never....	0	3	1	2	8	11	1	12	9	25	2	11	4	5	5	3	11	10	41	81	122	39	51	47
Once.....	1	2	1	2	1	6	3	2	3	6	5	7	4	2	1	4	0	0	19	31	50	18	20	19
More than Once....	16	12	3	3	1	3	4	8	2	6	1	1	3	7	5	0	9	6	44	46	90	42	29	34
	17	17	5	7	10	20	8	32	14	37	8	19	11	14	11	7	20	16	104	158	262	99	100	100
4. Used the Career Resource Center in my school																								
Never....	0	3	1	1	5	6	6	15	9	30	9	18	0	2	2	1	13	11	45	87	132	40	55	49
Once.....	1	1	0	1	4	6	0	5	6	3	0	0	3	5	3	1	0	1	17	23	40	15	15	15
More than Once....	16	12	5	5	4	9	1	1	0	2	0	0	8	10	7	4	9	5	50	48	98	45	30	36
	17	16	6	7	13	21	7	21	15	35	9	18	11	17	12	6	22	17	112	158	270	100	100	100

Table A. (continued)

Activities and Response Categories	Number of Times Reported																					Percent of Total		
	Gr 12		Gr 11		Gr 10		Gr 9		Gr 8		Gr 7		Gr 6		Gr 5		Gr 4		Total					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M+F	M	F	Total
5. Used career education kits and games																								
Never....	0	4	2	1	5	10	5	13	7	12	9	13	2	4	9	0	9	12	48	69	117	43	44	44
Once.....	1	1	0	3	7	5	1	6	6	10	0	2	5	3	1	3	4	0	25	33	58	23	21	22
More than Once....	16	12	4	3	1	5	1	2	2	11	0	2	4	10	2	4	8	5	38	54	92	34	35	34
	17	17	6	7	13	20	7	21	15	33	9	17	11	17	12	7	21	17	111	156	267	100	100	100
6. Took career interest test with class																								
Never....	0	2	1	1	6	4	4	8	3	5	9	14	1	2	8	3	14	12	46	51	97	41	33	36
Once.....	3	2	2	3	4	8	0	8	9	23	0	1	8	6	1	3	8	6	35	60	85	31	38	35
More than Once....	14	13	3	3	3	5	3	6	3	8	0	2	3	7	2	1	0	0	31	45	76	28	29	28
	17	17	6	7	13	17	7	22	15	36	9	17	12	15	11	7	22	18	112	156	268	100	100	99
7. Took career interest test as individual																								
Never....	0	2	1	0	5	9	5	12	9	19	9	14	4	8	8	2	18	18	59	84	143	55	55	55
Once.....	2	2	2	4	7	8	1	7	4	13	0	1	2	2	1	1	0	0	19	38	57	18	25	22
More than Once....	16	13	3	3	1	3	1	2	2	4	0	2	4	4	1	0	1	0	29	31	60	27	20	23
	18	17	6	7	13	20	7	21	15	36	9	17	10	14	10	3	19	18	107	153	260	100	100	100
8. Discussed test with counselor or Career Information Specialist																								
Never....	0	1	0	1	6	14	5	12	12	26	9	14	1	6	8	5	12	13	53	92	145	50	59	56
Once.....	3	3	3	3	4	4	0	7	2	10	0	0	3	3	3	0	8	5	26	35	61	25	23	23
More than Once....	13	12	3	2	1	3	2	3	0	1	0	1	6	4	1	2	1	0	27	28	55	25	18	21
	16	16	6	6	11	21	7	22	14	37	9	15	10	13	12	7	21	18	106	155	261	100	100	100
9. Took civil service examination																								
Never....	1	2	2	2	9	10	3	16	12	33	9	16	10	15	7	6	20	14	73	114	187	67	72	70
Once.....	3	8	2	4	1	7	3	6	2	3	0	1	0	1	2	0	0	3	13	33	46	12	21	17
More than Once....	14	6	2	1	1	3	1	0	1	1	0	0	1	0	2	0	1	0	23	11	34	21	7	13
	18	16	6	7	11	20	7	22	15	37	9	17	11	16	11	6	21	17	109	158	267	100	100	100

Table A. (continued)

Activities and Response Categories	Number of Times Reported																					Percent of Total		
	Gr 12		Gr 11		Gr 10		Gr 9		Gr 8		Gr 7		Gr 6		Gr 5		Gr 4		Total					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M+F	M	F	Total
10. Attended Career Education Fair																								
Never....	0	1	1	0	2	5	1	3	9	24	7	10	5	6	5	6	2	2	32	57	89	29	35	33
Once.....	0	4	2	5	6	10	1	9	4	6	2	5	6	5	7	0	12	9	40	53	93	36	33	34
More than Once....	17	12	3	2	3	16	5	5	2	7	0	0	1	2	1	0	7	8	39	52	91	35	32	33
	17	17	6	7	11	31	7	17	15	37	9	15	12	13	13	6	21	19	111	162	273	100	100	100
11. Watched films on career education																								
Never....	0	2	1	1	2	7	2	6	0	5	4	7	0	4	2	3	1	4	12	39	51	11	24	19
Once.....	3	3	1	3	4	4	1	7	10	16	5	6	0	3	5	2	3	0	32	44	76	29	28	28
More than Once....	13	12	5	3	7	10	4	9	5	16	0	3	12	7	3	1	18	16	67	77	144	60	48	53
	16	17	7	7	13	21	7	22	15	37	9	16	12	14	10	6	22	20	111	160	271	100	100	100
12. Shared work experience																								
Never....	0	3	2	4	5	11	3	9	4	19	6	6	5	12	5	4	10	13	40	81	121	37	52	46
Once.....	1	3	0	0	1	3	3	7	8	11	3	5	4	0	6	1	1	3	27	33	60	25	21	23
More than Once....	14	11	4	3	7	7	1	5	3	6	0	5	2	1	0	1	11	3	42	42	89	38	27	32
	15	17	6	7	13	21	7	21	15	36	9	16	11	13	11	6	22	19	109	156	265	100	100	101
13. Took test-taking course																								
Never....	2	4	1	4	10	14	2	15	13	23	5	6	10	11	11	5	12	13	66	95	161	55	61	59
Once.....	11	8	3	2	1	2	4	4	1	7	4	5	1	0	1	2	8	4	34	34	68	29	22	25
More than Once....	3	5	1	1	2	5	1	2	1	7	0	3	0	3	0	0	11	0	19	26	45	16	17	16
	16	17	5	7	13	21	7	21	15	37	9	14	11	14	12	7	31	17	119	155	274	100	100	100
14. Took decision-making course																								
Never....	3	2	1	4	6	10	5	12	10	28	8	9	1	1	8	6	21	15	63	87	150	56	56	56
Once.....	11	13	1	2	3	2	2	10	4	7	0	2	0	1	2	0	0	0	23	37	60	21	24	23
More than Once....	4	2	4	1	4	7	0	0	1	2	1	4	10	12	1	0	1	2	26	30	56	23	19	21
	18	17	6	7	13	19	7	22	15	37	9	15	11	14	11	6	22	17	112	154	266	100	99	100

Table A. (continued)

Activities and Response Categories	Number of Times Reported																					Percent of Total		
	Gr 12		Gr 11		Gr 10		Gr 9		Gr 8		Gr 7		Gr 6		Gr 5		Gr 4		Total					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M+F	M	F	Total
15. Took part in group counseling																								
Never....	1	1	2	0	8	10	5	15	12	31	1	7	0	1	8	0	12	12	49	77	126	44	48	47
Once.....	1	4	1	4	2	6	2	5	3	2	2	2	1	1	3	6	0	0	15	30	45	14	19	17
More than Once....	14	12	3	3	3	5	0	2	0	3	6	7	11	15	0	0	10	5	47	52	99	42	33	37
	16	17	6	7	13	21	7	22	15	36	9	16	12	17	11	6	22	17	111	159	270	100	100	101
16. Took part in individual counseling																								
Never....	1	3	2	1	8	12	5	16	9	27	1	8	3	5	6	2	12	12	47	86	133	42	53	49
Once.....	1	1	1	2	4	3	2	5	4	8	2	2	1	0	3	4	2	1	20	26	46	18	16	17
More than Once....	15	13	3	4	1	6	0	1	2	2	6	7	8	11	1	0	8	5	44	49	93	40	30	34
	17	17	6	7	13	21	7	22	15	37	9	17	12	16	10	6	22	18	111	161	272	100	99	100

APPENDIX B

APPENDIX TABLE B

Number of students reporting their "Feelings" about outdoor learning, before and after camp: Spring '78 Campers, Fall '77 Campers, and Non-Campers.

"About Your Feelings"	Spring '78 Campers								Fall '77 Campers				Non-Campers			
	Yes		No		Not Sure		Total									
	Before	After	Before	After	Before	After	Before	After	Yes	No	Not Sure	Total	Yes	No	Not Sure	Total
1. I like going to an outdoor school....	112	92	5	3	38	11	155	106	66	2	7	75	13	10	14	37
2. I like taking part in activities with people of different races, and nationalities.....	137	93	2	2	16	11	155	106	66	3	8	77	31	1	5	37
3. I like playing and learning in different kinds of places.....	147	99	3	1	8	6	158	106	76	-	1	77	36	-	2	38
4. I like telling about interesting things I do.....	122	85	8	4	25	16	155	105	59	8	11	78	32	1	5	38
5. It is fun to collect things from nature.....	124	96	9	5	22	3	155	104	71	3	2	76	- 28	6	2	36
6. I am interested in learning about other cultures.....	113	78	8	6	35	21	156	105	58	8	12	78	30	2	5	37
7. I enjoy arts and crafts.....	142	95	3	6	9	4	154	105	75	1	1	77	32	1	5	38
8. Field trips help to make learning fun.....	141	97	2	-	12	9	155	106	71	1	3	75	31	2	4	37
9. Studying about nature is fun.....	126	98	18	1	23	6	167	105	69	3	4	76	32	3	2	37
10. I am comfortable with children of other races.....	93	79	13	10	52	16	158	105	56	8	14	78	17	8	12	37
11. A camp is a good place to study and learn.....	130	95	4	2	25	8	159	105	75	1	1	77	31	3	3	37

APPENDIX TABLE B (cont'd)

"About Your Feelings"	Spring '78 Campers								Fall '77 Campers				Non-Campers			
	Yes		No		Not Sure		Total									
	Before	After	Before	After	Before	After	Before	After	Yes	No	Not Sure	Total	Yes	No	Not Sure	Total
12. It is hard to talk to children whose race is different from mine....	53	36	68	49	38	22	159	107	24	40	14	78	22	7	8	37
13. I would enjoy an outdoor school for a little while.....	90	70	29	23	34	11	153	104	53	18	6	77	23	4	11	38
14. I like studying in a school classroom better than a camp.....	38	26	62	53	54	29	154	108	20	43	14	77	24	7	5	36
15. It is easier to make new friends in a camp than in regular school.....	76	78	35	14	48	18	159	110	48	16	12	76	12	13	10	35
16. You can learn many new things in an outdoor school.....	130	100	4	2	24	3	158	105	76	--	1	77	22	5	10	37
17. It would be nice to go to a camp school all the time.....	87	53	32	30	39	21	158	104	49	22	7	78	10	15	13	38
18. You can't learn anything about the environment in one week.....	37	42	43	39	78	25	158	106	36	31	9	76	9	16	11	36
19. Trail hikes and mountain climbing are fun ways to learn.....	136	97	5	2	16	7	157	106	68	4	4	76	28	4	6	38
20. Outdoors is the best way to study nature.....	134	95	10	4	15	8	159	107	69	7	2	78	37	--	1	38
21. Having different classmates helps you learn to get along with others...	146	99	1	5	10	3	157	107	69	1	7	77	31	1	5	37
22. You learn more when you are taught by a number of different teachers....	110	81	14	8	39	17	163	106	52	7	18	77	27	4	7	38
23. Making new friends can make you happier.....	133	89	6	2	22	13	161	104	62	3	11	76	31	2	5	38
24. Outdoor school lets you have experiences that a regular school does not.....	104	88	13	5	42	15	159	108	66	4	7	77	21	1	15	37
25. I am afraid to say away from home overnight.....	14	4	139	100	7	2	160	106	4	73	1	78	2	34	2	38

INQUIRY CONCERNING THE TWO-W PROJECT: 1977-78

1a

Administrator Response Form

Your school_____ Your position_____Date_____

Is the ESSA Two-W Project currently operating in your school? Yes____; No____

If you checked "No", please return this form with no further response. If you checked "Yes", please respond to the following questions, and then return this form as instructed. (If you think you have no adequate basis for answering a given question, state that fact).

Which of the following Two-W programs functioned in your school during this school year? (Check those that did.)

a. Skills center in reading.....____
b. Skills center in mathematics.....____
c. Elementary Enrichment Package.....____
d. NEW YORK TIMES Mobile Reading Program.....____
e. Embassy Adoption Program.....____
f. Secondary Internship Program.....____
g. Audobon Naturalist Environment Program.....____
h. Washington Technical Institute Orientation Program.....____

What (if any) special problems did you experience in implementing the Two-W Project in your school this school year?

What do you perceive as the main strengths of the Project?

more.....

What do you perceive as the main weaknesses of the Project?

What suggestions do you offer for making the Project more effective in developing students' basic skills and general educational growth.

Considering only those Two-W programs in your school this year, place check-marks below to indicate how valuable you think each such program was as an educational experience for students. (Leave blank the lines of programs not operating in your school this year.)

Program Components	No basis to judge	No value	Little value	Substantial value	Great value	Very Great value
A. Skills center; reading						
B. Skills center: mathematics						
C. Elementary enrichment pkg.						
D. N.Y. TIMES Reading Prog.						
E. Embassy Adoption Program						
F. Secondary Internship Prog.						
G. Audubon Naturalist Env. Program						
H. Washington Tech. Orientnt.						

A-1b

Administrator Response Form

A. Your school_____ Your position_____ Date_____

B. Is the ESAA Career Education Program currently operating in your school? Yes____ No____

C. If you checked "No", please return this form with no further response. If you checked "Yes", please respond to the following questions, and then return this form as instructed. (If you think you have no adequate basis for answering a given question, state that fact).

1. What (if any) special problems did you experience in implementing the ESAA Career Education Program this school year?

2. What do you perceive as the main strengths of the Program?

3. What do you perceive as the main weaknesses of the Program?

4. What suggestions do you offer for making the Program more effective in serving the career education needs of students?

more ...

5. Place check-marks below to indicate your assessment of the education value of the specified components of the ESAA Career Education Project in your school this year.

Program Components	No basis to judge	No value	Little value	Substantial value	Great value	Very Great value
A. Career Education Re source Center (materials)						
B. Role of Career Information Specialist						
C. Helping teachers develop career education in their instruction progrms						
D. Helping students make and prepare for career choices						

INQUIRY CONCERNING THE ESSA ROUND MEADOW OUTDOOR LABORATORY SCHOOL: 1977-78

-1c

Administrator Response Form

A. Your school_____ Your position_____Date____

B. Did your school participate this year in the Outdoor Laboratory School Project?.....Yes_____; No____

C. If you checked "No", please return this form with no further response. If you checked "Yes", please respond to the following questions, and then return the form as instructed. (If you think you have no adequate basis for answering a given question, state that fact).

1. What (if any) special problems did you experience this school year in implementing the Round Meadow Outdoor Laboratory School Project?

2. What do you perceive as the main strengths of the Project?

3. What do you perceive as the main weaknesses of the Project?

4. What suggestions do you offer for making the Project more effective in serving the educational needs of students?

more....

A-1c

5. Place check-marks below to indicate your assessment of the educational value of the specified components of the ESAA Outdoor Laboratory School Project in your school this year.

	No basis to judge	No value	Little value	Substantial value	Great value	Very great value
A. One-week experience for students						
B. Post-camp follow-up activities						

INQUIRY CONCERNING THE ESAA SPECIAL AND REMEDIAL SERVICES PROGRAM: 1977-78

A-1d

Administrator Response Form

A. Your school_____ Your position_____ Date_____

B. Is the ESAA Special and Remedial Services Program currently operating in your school?.....Yes___; No___

C. If you checked "No", please return this form with no further response. If you checked "Yes", please respond to the following questions, and then return the form as instructed. (If you think you have no adequate basis for answering a given question, state that fact).

1. What (if any) special problems did you experience this school year in implementing the Special and Remedial Services Program?

2. What do you perceive as the main strengths of the Progam?

3. What do you percieve as the main weaknesses of the Program?

4. What suggestions do you offer for making the Program more effective in developing students' basic skills in reading and mathematics?

CE-1

INQUIRY CONCERNING THE ESAA CAREER EDUCATION PROGRAM: 1977-78

Teacher/Counselor Response Form

Your School_____ Your Position_____ Grade___ Date_____

Part I - Career Education Activities

Listed below are 13 teacher/counselor activities directly related to career education. In which ones did you participate during this school year? How valuable were they in helping you conduct career education with your pupils?

In Column A, place a check-mark beside each activity in which you participaged one or more times during this school year. Add others not listed (note that "CE" means "Career Education.")

In Column B, place a check-mark to indicate how valuable you consider each activity in which you took part. (Leave blank the lines for activities you did not take part in.)

Col. A Activities in which you took part (Check)	Check	Col.B No value	Little value	Ample value	Great value	Very Great value
A. Participated in the following staff-development activities of the Resource Center:						
1. Workshops						
2. Sessions on instructional materials						
3. Sessions on instructional plans						
4. Demonstrations of instructional strategies						
Other (Specify): 5._____						
B. Used the following services of the Resource Center: (Check)						
6. Field trips to industry, government, etc						
7. Resource speakers						
8. Other community resources						
9. Films or other media materials						
10. Other instructional materials						
11. Consultation with Career Information Specialist on individual student's needs						
12. Consultation with Career Information Specialist on instructional problems						
Other (Specify) 13._____						

more...

Part II - General Assessments

1. What do you perceive as the main strengths of the ESAA Career Education Program?

2. What do you perceive as the main weaknesses of the Program?

3. Check one of the following to indicate your overall assessment of the Program's effectiveness in serving students' career-education needs.

   a. Not at all effective..... _____
   b. Minimally effective..... _____
   c. Substantially effective..... _____
   d. Highly effective..... _____
   e. Extremely effective..... _____
   f. No basis for judgment..... _____

4. What suggestions do you offer for making the ESAA Career Education Program more effective in serving students' career-education needs?

2

INQUIRY CONCERNING THE ESAA CAREER EDUCATION PROGRAM:
1977-78
Student Response Form

students;

District of Columbia public school system is eager to improve its career education
gram, the better to serve your needs.

ask you to help us do this by providing the information called for below.
not sign your name.

Thank you,

DIVISION OF RESEARCH
AND EVALUATION

---

r
ool _____ Your sex _____ Your grade _____ Date _____

Part I - Career Education Activities

ted below are 16 activities related to career education. In which ones did you take
t during this school year. How often?

the line to the right of each activity, place one check-mark to indicate how often
took part in it, if at all.

Career Education Activities	I took part in the activity: Never	Once	More than once
ent on field trips to industry, government or other			
istened to speakers on careers			
ook part in small-group sessions with adult leaders			
sed the Career Resource Center in my school			
sed career education kits and games			
ook a career interest test with class			
ook career interest test as individual			
iscussed test with counselor or Career Information Specialist			
ook Civil Service examination			
ttended Career Education Fair			
atched films on career education			
hared work experience			
ook test-taking course			
ook decision-making course			
ook part in group counseling			
ook part in individual counseling			

Part II - Career Education Needs

isted in Column A below are career education needs that many students feel. Which nes do you feel? Which ones are being served by your school?

o the right of each need listed in Column A:

(1) Place a check-mark in Column B to indicate whether you feel that need.
(2) Place a check-mark in Column C to indicate each need your school is helping you with.

A Some Career Education Needs	B Which needs do YOU feel?	C Which needs is your school helping with?
To develop skill in making wise decisions		
To relate what I learn to occupations		
To appreciate the social and economic importance of work		
To appreciate the importance of work for my personal development		
To know my own career interests and aptitudes		
To know about available career choices		
To test my career interests and aptitudes through work experience		
To know how my career choice will affect my lifestyle		
To learn about present and future job trends		
To know how my personal needs and values should affect my career choice		
To understand how the free enterprise system works		
To develop a flexible career plan		
To know what employers and institutions of higher education expect of a person		
To prepare for what to do when I leave school		
To know how to get and keep a job		
To know how to advance in a job		
To know how to qualify for and succeed in college		
To make field trips to learn about the world of work		
To develop positive attitudes toward myself, school and work		
To know about business and industry in my community		
To prepare for a group of related jobs, as well as for one in particular		
To know the educational and training requirements of various jobs.		
For skill in writing resumes and filling out job applications		
For practice in how to conduct myself in a job interview		

Some Career Education Needs	Which needs do YOU feel?	Which needs is your school helping with?
For skill in gathering job information . . .		
To develop responsibility for my own life plans		
To improve my social and communication skillls		
To improve my human relations and public relations skills		
To develop good attitudes and habits of work.		
To develop skill in problem-solving		
To develop independent, self-reliant patterns of behavior		
To know more about school and community resources for career planning, preparation		
To develop beginning skills for entry into a particular job		
To know about job-training opportunities other than college		

CE-3

INQUIRY CONCERNING THE ESAA CAREER EDUCATION PROGRAM

TO: Career Information Specialists

FROM: Mildred P. Cooper, Assistant Superintendent for Research and Evaluation, District of Columbia Public Schools

We ask your help in improving the Career Education Program conducted under the Emergency School Aid Act.

Please answer the questions below, seal this form in the envelope provided, and mail it promptly to this office through clerical services.

Your response will be seen only by Mediax Associates, Inc., whom we have engaged as outside evaluators of the ESAA Program. No individual or school will be identified in their report. Do not sign your name.

Thanks for your help.

On which school level (or levels) do you work in the ESAA Career Education Program? (Place check-marks to indicate)

A. Junior or senior high school....._____
B. Elementary school ....._____

1. What do you perceive as the main strengths of the ESAA Career Education Program?

2. What do you perceive as the main weaknesses of the Program?

more...

3. What suggestions do you offer for making the overall Program more effective?

4. List the three activities in your program that you consider most effective in serving the career-educational needs of students.

   a. _____

   b. _____

   c. _____

5. List the three activities in your program that you consider least effective in serving the career-educational needs of students.

   a. _____

   b. _____

   c. _____

6. What professional-development needs do you perceive as important for improving your own effectiveness in working with the ESAA Career Education Program?

OIS-1

ROUND MEADOW OUTDOOR LABORATORY SCHOOL

Student Inventory

Name_____ Date_____
Last First Middle

School_____ Grade_____ (Check one) Boy____; Girl____

Have you ever been to any kind of outdoor camp before? (Check one) Yes____; No____

Part I. About Your Feelings

Directions

We would like to know what you think about taking part in an outdoor school program. Please tell us by putting a check-mark (✓) on the blank line under the answer you choose. Your choices are: "Yes", or "No", or "Not Sure".

	Yes	No	Not Sure
EXAMPLE: I like meeting new people.....	✓		
	Check on	ly one	
	Yes	No	Not Sure
1. I like going to an outdoor school.....			
2. I like taking part in activities with people of different races and nationalities.....			
3. I like playing and learning in different kinds of places.....			
4. I like telling about interesting things I do.....			
5. It is fun to collect things from nature.....			
6. I am interested in learning about other cultures.....			
7. I enjoy arts and crafts.....			
8. Field trips help to make learning fun.....			
9. Studying about nature is fun.....			
10. I am comfortable with children of other races.....			

more....

	Check only one.		
	Yes	No	Not Sure
11. A camp is a good place to study and learn.....			
12. It is hard to talk to children whose race is different from mine.....			
13. I would enjoy an outdoor school for a little while.....			
14. I like studying in a school classroom better than a camp.....			
15. It is easier to make new friends in a camp than in regular school.....			
16. You can learn many new things in an outdoor school.....			
17. It would be nice to go to a camp school all the time.....			
18. You can't learn anything about the environment in one week.....			
19. Trail hikes and mountain climbing are fun ways to learn.....			
20. Outdoors is the best way to study nature.....			
21. Having different classmates helps you learn to get along with others.....			
22. You learn more when you are taught by a number of different teachers.....			
23. Making new friends can make you happier.....			
24. Outdoor school lets you have experiences that a regular school does not.....			
25. I am afraid to stay away from home overnight.....			

more....

Key

Part II. How Much Do You Know?

Directions: Section 1
Tell us what you know about the environment by putting a check-mark (✓) in the blank line beside each of the following statements.

If the statement is correct, check True.
If the statement is wrong, check False.
If you are not sure, check Don't Know.

	True	False	Don't Know
SAMPLE: People can learn to live without food.....		✓	

Check only one.

	True	False	Don't Know
26. Everything around us makes up the environment.....	✓		
27. Living and non-living things are related.....			
28. Plants and animals need each other to live and grow.....			
29. Clear water is always clean water.....			
30. All living things need water.....	✓		
31. Green plants make their own food.....	✓		
32. The lower the depth of water, the higher the temperature of the water.....		✓	
33. We can tell how old a tree is by counting its branches.....		✓	
34. Free-swimming life is found in streams.....	✓		
35. Early man lived mostly from the environment.....	✓		
36. Long ago people used plants to dye clothes.....	✓		
37. You cannot tell which way a stream flows.....		✓	
38. Plants grow towards the sun.....	✓		
39. Early settlers had large families because there was a lot of room for them.....		✓	
40. Predatory animals hunt and eat other animals.....	✓		

Key

Directions: Section 2
This is a matching test. You are to match the words in Column I with the definitions and descriptions in Column II.

1. Read each statement in Column II, beginning with 41.
2. Find the word in Column I that goes with that statement on this or the next page.
3. Write the letter beside that word on the blank line in Column III.

SAMPLE:	Column I	Column II	Column III
	A. wood B. chicken C. sunlight	Many people eat it.....	B

Column I	Column II	Column III
A - igneus rock	41. Tree that provides sugar and syrup.....	Q
B - conservation	42. Environmental term for cloudy, dirty water.....	H
C - walnut	43. Tells the age of a tree.....	D
D - rings	44. Best way to tell the type of tree.....	J
E - prey	45. Change of a vapor to a liquid.....	X
F - ecology	46. Changing water to steam.....	C C
G - compost	47. First stage in life cycle of insects.....	Z
H - polluted	48. Can be used to measure temperature of a stream...	Y
I - stones	49. Plants that can't make their own food.....	V
J - bark	50. Food producing tree.....	C or Q
K - chlorine	51. Resources provided without man's help.....	W
L - leaves	52. Great source of energy.....	R
M - insects	53. Forms when melted lava cools.....	A
N - tadpole	54. Gives green color to plants.....	U
O - amphibians	55. Young amphibians breathe through them.....	P
P - gills	56. Animals that have jointed legs and hard, crusty body coverage.....	T
Q - maple	57. Have two antennae and 3 pairs of legs.....	M
R - sun	58. Older amphibians breathe through them.....	S
S - lungs	59. Added to drinking water to purify it.....	K
T - crustaceans	60. A baby frog.....	N

More....

Key

Column I	Column II	Column III
U - chlorophyll	61. Vertebrate animals that spend part of their life in water and part on land.....	O
V - fungi	62. Study of organisms and their environment.....	F
W - natural	63. Early road markers.....	I
X - condensation	64. Saving and preserving natural resources.....	B
Y - thermometer	65. Animals that are hunted and eaten by other animals.....	E
Z - egg		
AA - larva		
BB - carbon dioxide		
CC - evaporation		

OLS-2

INQUIRY CONCERNING THE ROUND MEADOW OUTDOOR LABORATORY SCHOOL PROJECT

Response Form: Camp Personnel

TO: Personnel of the Outdoor Laboratory School Camp

FROM: Mildred P. Cooper, Assistant Superintendent for Research and Evaluation, District of Columbia Public Schools

We ask your help in improving the Round Meadow Outdoor Laboratory School Project.

Please answer the questions below, seal this form in the envelope provided, and mail it promptly to this office through Clerical Services.

Your response will be seen only by Mediax Associates, Inc., whom we have engaged as outside evaluators of the ESAA Program. No individual or school will be identified in their report. Do not sign your name.

Thanks for your help.

Your position
at the Camp_____ Date_____

1. What do you perceive as the main strengths of the Outdoor Laboratory School Project?

2. What do you perceive as the main weaknesses of the Project?

more...

3. On the basis of your experience at the Camp during the 1977-78 school year, how do you rate the overall effectiveness of these two camp programs: A-Skills Development, and B-Interracial/Intercultural activities? (Check one in each column.)

	A Skills Development	B Interracial/ Intercultural
a. Not at all effective		
b. Minimally effective		
c. Substantially effective		
d. Highly effective		
e. Extremely effective		
f. No basis for judgement		

4. What suggestions do you offer for making the Camp program more effective?

5. What professional-development needs do you perceive as important for improving your own effectiveness in working with the Camp program? (List them on separate lines below.)

a. _____

b. _____

c. _____

d. _____

e. _____

OLS-3

INQUIRY CONCERNING THE ROUND MEADOW OUTDOOR LABORATORY SCHOOL PROJECT

Response Form: School-based Teachers

TO: School-based Teachers of the Outdoor Laboratory School Project:

FROM: Mildred P. Cooper, Assistant Superintendent for Research and Evaluation, District of Columbia Public Schools

We ask your help in assembling information and judgments that will help us plan improvements in the Round Meadow Outdoor Laboratory School Project.

Please answer the questions below. Then seal this form in the envelope provided, and mail it promptly to this office through Clerical Services.

Your response will be seen only by Mediax Associates, Inc., whom we have engaged as outside evaluators of the ESAA Program. No individual or school will be identified in their report. Do not sign your name.

Thanks for your help.

- - - -

3. On the basis of your experience during the 1977-78 school year, how do you rate the overall effectiveness of these two components of the program: A-Skills Development and B-Interracial/Intercultural acitviites? (Check one in each column.)

	A Skills Development	B Interracial/ Intercultural
a. Not at all effective . . .	_____	_____
B. Minimally effective. . . .	_____	_____
c. Substantially effective.	_____	_____
d. Highly effective	_____	_____
e. Extremely effective. . . .	_____	_____
f. No basis for judgment. . .	_____	_____

4. What suggestions do you offer for making the Outdoor Laboratory School Project more effective?

5. What professional-development needs do you perceive as important for improving your own effectiveness in working with the Project? (List them on separate lines below.)

a. _____

b. _____

c. _____

d. _____

e. _____

OLS-4

INQUIRY CONCERNING THE ESAA ROUND MEADOW OUTDOOR LABORATORY SCHOOL PROJECT

Response Form: Regular Teachers

TO: Teachers Working with the Outdoor Laboratory School Project

FROM: Mildren P. Cooper, Assistant Superintendent for Research and Evaluation, District of Columbia Public Schools

We ask your help in improving the Round Meadow Outdoor Laboratory School Project.

Please answer the questions below. Then seal this form in the envelope provided and mail it promptly to this office through Clerical Services.

Your response will be seen only by Mediax Associates, Inc., whom we have engaged as outside evaluators of the Project. No individual or school will be identified in their report. Do not sign your name.

Thanks for your help.

M.P.C.

School _____ Grade _____ Date _____

1. Did your class spend a week at the Round Meadow Camp during the 1977-78 school year? (Check one)... Yes___; No ___

2. If "No," is your class scheduled to spend a week at the Camp? (Check one) ... Yes__; No ___
   If "Yes," when? _____

3. In which of the following activities related to the Outdoor Laboratory School did you participate during this school year? (Check to indicate which ones.)
   a. Oriented students on the purpose and nature of the camp experience, in advance. . . . . .____
   b. Visited the camp myself . . . . . .____
   c. Conducted special skills-development instruction with students after they returned from the Camp . . . . . .____
   d. Conducted special inter-cultural activities with students after they returned from the Camp . . . . . .____
   e. Participated in one or more staff conferences designed to prepare me for working with the Project . . . . . .____
   f. Other Project-related activities (List below):
   g. _____ . . . . . .____
   h. _____ . . . . . .____
   i. _____ . . . . . .____

more.....

4. What do you perceive as the main strengths of the Outdoor Laboratory School Project?

5. What do you perceive as the main weaknesses of the Project?

6. What suggestions do you offer for making the Project more effective?

7. What (if any) professional-development needs do you perceive as important for improving your own effectiveness in working with the Outdoor Laboratory School Project? (List them on separate lines below.)

a. _____

b. _____

c. _____

d. _____

e. _____

2W-1

INQUIRY CONCERNING THE ESSA TWO-W PROJECT: 1978-78

Response Form; Skills Center Teachers and Tutors

TO: Teachers and Tutors in Two-W Project Skills Centers

FROM: Mildred P. Cooper, Assistant Superintendent for Research and Evaluation, Public Schools of the District of Columbia

We ask your help in improving the Skills Center component of the Two-W Project.

Please answer the questions below, seal this form in the envelope provided, and mail it promptly to this office through Clerical Services.

Your response will be seen only by Mediax Associates, Inc., whom we have engaged as outside evaluators of the ESSA Program. No individual or school will be identified in their report. Do not sign your name.

Thanks for your help.

A. What is your position in the Skills Center? (Check one.)

a. Mathematics teacher..___
b. Reading teacher.....___
c. Tutor.....___

B. On which school level (or levels) do you work? (Check one.)

a. Elementary school.....____
b. Junior or senior high school..____

1. What do you perceive as the main strengths of the Two-W Skills Center Program?

2. What do you perceive as the main weaknesses of the Program?

more

3. Which (if any) of the conditions and developments listed below do you perceive as problems that limited the effectiveness of your work in the skills center during 1977-78? Check only those that apply. If there are others, list them on the blank lines.

	Check of a problem.
a. Classes too large.....	_____
b. Classes too small.....	_____
c. Attendance poor.....	_____
d. Student behavior disruptive.....	_____
e. Classroom space inadequate.....	_____
f. Storage space inadequate.....	_____
g. Instructional materials not appropriate for students	_____
h. Not enough instructional materials.....	_____
i. Instructional materials worn out, need replacement.	_____
j. Too many administrative interruptions.....	_____
k. Difficulties with schedule.....	_____
l. Not enough help from central Two-W staff.....	_____
m. Not enough support from school administration.....	_____
OTHERS (specify):	
_____.....	_____
_____.....	_____
_____.....	_____

4. What suggestions do you offer for making the Two-W Skills Center Program more effective in helping students to develop basic skills?

5. What professional-development needs do you perceive as important for improving your own effectiveness in the skills-center program? (List them on separate lines below.)

a. _____

b. _____

c. _____

d. _____

e. _____

SRS-1

INQUIRY CONCERNING THE ESAA SPECIAL AND REMEDIAL SERVICES PROGRAM

Response Form: Itinerant Teachers

TO: Itinerate Teachers in the ESAA Special and Remedial Services Program

FROM: Mildred P. Cooper, Assistant Superintendent for Research and Evaluation, District of Columbia Public Schools

We ask your help in improving the Special and Remedial Services Program conducted under the Emergency School Aid Act.

Please answer the questions below, seal this form in the envelope provided, and mail it promptly to this office through clerical services.

Your response will be seen only by Mediax Associates, Inc., whom we have engaged as outside evaluators of the ESAA Program. No individual or school will be identified in their report. Do not sign your name.

Thanks for your help.

Please check to indicate whether you work with students in public school or private school or both.

a. Public school _____
b. Private school _____
c. Both _____

1. What do you perceive as the main strengths of the Special and Remedial Services Program?

more.....

2. What do you perceive as the main weaknesses of the Program?

3. On the basis of your experience during the 1977-78 school year, how do you rate the overall effectiveness of the Special and Remedial Services Program in fostering student student development? (Check one)

a. Not at all effective ....._____
b. Minimally effective ....._____
c. Substantially effective ....._____
d. Highly effective ....._____
e. Extremely effective ....._____
f. No basis for judgement ....._____

4. What suggestions do you offer for making the Program more effective?

5. What professional-development needs do you perceive as important for improving your own effectiveness in working with the Special and Remedial Services Program? (List them on separate lines below)

a._____

b._____

c._____

d._____

e._____

INQUIRY CONCERNING THE ESAA TWO-W PROJECT: 1977-78

Regular Teacher Response Form
(Not for use by skills-center teachers)

Your school_____ Grade and/or subject taught_____ Date_____

1. The Two-W Project conducts skills centers in reading and in mathematics in 17 elementary and junior high schools. Is one of these skills centers in your school? (Check) Yes....____
No.....____
Don't know..____

2. If you checked "Yes":
   a. Did you visit the skills center this school year? Yes..____
   No...____

   b. Did you take your class to the skills center one or more times this year?.....Yes....____
   No.....____

   c. In your opinion, how valuable to your school is the skills center program? (Check one of the following.)
   No value.....____
   Little value.....____
   Substantial value.....____
   Great value.....____
   Very great value.....____
   No basis for judgment.....____

3. What suggestions do you offer for improving the Skills Center Program?

4. The Two-W Project conducts the 6 Alternative and Enrichment programs listed below in Column A. Do you know about these programs? Did your class participate in them this school year?

   Place check-marks in Columns B and C to indicate your ansswers to the above questions.

A Alternative/Enrichment Programs	B Do you know about the program?		C Did your class participate?	
	Yes	No	Yes	No
a. Elementary Enrichment Package.....				
b. NEW YORK TIMES Mobile Reading Prog....				
c. Embassy Adoption Program.....				
d. Secondary Internship Program.....				
e. Audubon Naturalist Environment Prog...				
f. Washington Technical Institute Orientation Program.....				

more . . . .

5. Considering only those Alternative/Enrichment programs in which your class participated during this school year, place check-marks below to indicate how valuable you think each such program was as an educational experience for your students. (Leave blank the lines of programs in which your students did not participate.)

Programs	no value	little value	sub-stantial value	great value	very great value
a. Elementary Enrichment Package.....					
b. NEW YORK TIMES Reading Program.....					
c. Embassy Adoption Program..					
d. Secondary Internship Program.....					
e. Audubon Naturalist Environment Program....					
f. Washington Technical Institute Program.....					

6. What suggestions do you offer for improving the Alternative and Enrichment Program?

7. The Two-W Project issues the two publications listed in Column A below. Did you see them during this school year? How useful do you perceive them to be?

   Place check-marks in Columns B and C to indicate your answers to the above questions.

A	B		C		
	I did see it.	I did not see it.	I think it is:		
Publications			Useless	Useful	Very Useful
a. NEWSLETTER.....					
b. 2-W WHAT'S HAPPENING.					

8. What suggestions do you offer for improving these Two-W publications? (Specify the publication to which each suggestion applies.)

lease fill out and mail.

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NEWSLETTER READERS' SURVEY

e ask the readers of NEWSLETTER to help us improve the Two-W Project by filling out and ailing this inquiry form. Do not sign your name.

1. Please check one or more of the following to indicate your relations to the D.C. Public Schools:
   a. Parent of one or more students attending the public schools.....____
   b. Public school teacher, administrator or other employee.....____
   c. None of the above.....____

2. Which (if any) public school does your child (or children) attend?_____

Check one column for each question.

	Yes	No	Don't Know
3. Is this the first copy of NEWSLETTER you have read during the 1977-78 school year?.....			
4. Do you receive NEWSLETTER regularly?.....			
5. Have you ever seen any other publication of the Two-W Project?.....			
6. Have you ever read anything about the Two-W Project in the newspaper?.....			
7. Concerning the Two-W Congress:			
a. Do you know what the Two-W Congress is?.....			
b. Are you a member?.....			
c. Are you an officer?.....			
d. Have you attended one or more meetings this school year?.....			
8. Do you have a child attending a Two-W school?.....			
9. If so, is your child enrolled in the skills-center program?.....			
a. If your answer is "Yes", does he/she like the program?.....			
10. If your child attends a Two-W school, in which (if any) of the following Alternative and Enrichment programs did he/she participate during this school year?.....			
a. Elementary Enrichment Package?.....			
b. NEW YORK TIMES Mobile Reading Program?.....			
c. Embassy Adoption Program?.....			
d. Secondary Internship Program?.....			
e. Audobon Naturalist Environmental.....			
f. Washington Technical Institute Orientation Program?.....			
11. Does your child like the program (or programs) to which you answered "Yes" above?.....			
12. In your opinion, are the supplementary services offered by the Two-W Project important for the education of children?.....			

ease seal this response form in the post-paid envelop supplied, and mail it promptly : Division of Research and Evaluation, D.C. Public Schools, 415 12th Street, N.W., shington, D.C. 20004. Thanks for your help.

Editors of NEWSLETTER